

ROYAL BOTANIC GARDENS, KEW.

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BULLETIN

OF

MISCELLANEOUS INFORMATION.

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APPENDIX III.—1912.

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NEW GARDEN PLANTS OF THE YEAR 1911.

The number of garden plants annually described in botanical and horticultural publications, both English and foreign, is now so considerable that it has been thought desirable to publish a complete list of them in the *Kew Bulletin* each year. The following list comprises all the new introductions recorded during 1911. These lists are indispensable to the maintenance of a correct nomenclature, especially in the smaller botanical establishments in correspondence with Kew, which are, as a rule, only scantily provided with horticultural periodicals. Such a list will also afford information respecting new plants under cultivation at this establishment, many of which will be distributed from it in the regular course of exchange with other botanic gardens.

The present list includes not only plants brought into cultivation for the first time during 1911, but the most noteworthy of those which have been re-introduced after being lost from cultivation. Other plants included in the list may have been in gardens for several years, but either were not described or their names had not been authenticated until recently.

In addition to species and well-marked varieties, hybrids, whether introduced or of garden origin, have been included where they have been described with formal botanical names. Mere cultural forms of well-known garden plants are omitted, for obvious reasons.

In every case the plant is cited under its published name, although some of the names are doubtfully correct. Where, however, a correction has appeared desirable, this is made.

The name of the person in whose collection the plant was first noticed or described is given where known.

An asterisk is prefixed to all those plants of which examples are in cultivation at Kew.

The publications from which this list is compiled, with the abbreviations used to indicate them, are as follows:—*B. K.*—Vaupel, Blühende Kakteen. *B. M.*—Botanical Magazine. *B. P.*—Bollettino

del R. Orto Botanico di Palermo. *B. T. O.*—Buletto della R. Società Toscana di Orticultura. *Fedde, Repert.*—Fedde, Repertorium specierum novarum regni vegetabilis. *Gard.*—The Garden. *G. C.*—Gardeners' Chronicle. *Gfl.*—Gartenflora. *G. M.*—Gardeners' Magazine. *Jard.*—Le Jardin. *J. of H.*—Journal of Horticulture. *J. H. F.*—Journal de la Société Nationale d'Horticulture de France. *K. B.*—Bulletin of Miscellaneous Information, Royal Botanic Gardens, Kew. *M. D. G.*—Mitteilungen der Deutschen Dendrologischen Gesellschaft. *M. G. Z.*—Möllers Deutsche Gärtner-Zeitung. *M. K.*—Monatsschrift für Kakteenkunde. *N. B. G. Edinb.*—Notes from the Royal Botanic Garden, Edinburgh. *O. R.*—Orchid Review. *Orchis.*—Orchis. Beilage zur Gartenflora. *O. W.*—The Orchid World. *Pl. Wils.*—Plantae Wilsonianae, edited by C. S. Sargent. *R. H.*—Revue Horticole. *R. H. B.*—Revue de l'Horticulture Belge. *Sargent, T. & S.*—Sargent, Trees and Shrubs. *Späth Cat.*—L. Späth, General Nursery Catalogue. *T. H.*—La Tribune Horticole. *Veitch, N. H. P.*—J. Veitch & Sons, New Hardy Plants from Western China.

The abbreviations in the descriptions of the plants are :—*diam.*—Diameter. *ft.*—Foot or Feet. *G.*—Greenhouse. *H.*—Hardy. *H. H.*—Half-hardy. *in.*—Inches. *S.*—Stove.

*Abies sibirica pendula.* (*M. D. G.* 1911, 168.) Coniferae. *H.* A form with pendulous branches. (Graf von Zamoyiski, Moloczki, Volhynien, Russia.)

*Abies sitchensis Bruanti.* (*Jard.* 1911, 25, f. 26.) *H.* A beautiful variety with semi-erect branches and glaucous-silvery leaves. (Bruant, Poitiers.) [*Picea sitchensis*, Carr., var.]

*Acacia Deneufvillei.* (*R. H. B.* 1911, 207; *B. T. O.* 1911, 222, f. 19.) Leguminosae. *G.* A hybrid between *A. podalyriaefolia* and *A. pycnantha*. (L. Winter, Bordighera.)

*Acacia Hanburyana.* (*B. T. O.* 1911, 220, f. 18; *R. H.* 1911, 318; *R. H. B.* 1911, 206, ff., as *A. Hamburyana*.) *G.* A hybrid between *A. podalyriaefolia* and *A. dealbata*. (L. Winter, Bordighera.)

*Acacia hybrida.* (*B. T. O.* 1911, 83, 120, f. 13.) *G.* A hybrid raised from seed obtained from a plant of *A. podalyriaefolia*. (*G. B.* Marsano, Nervi, Italy.)

*Acacia Siebertiana.* (*R. H. B.* 1911, 207; *B. T. O.* 1911, 223, f. 20.) *G.* A hybrid between *A. podalyriaefolia* and *A. pycnantha*, but differing from *A. Deneufvillei* in having almost lozenge-shaped instead of long leaves. (L. Winter, Bordighera.)

*Acalypha.* (*R. H.* 1911, 175-177, ff. 66-68; *M. G. Z.* 1911, 589-591, ff. 1-6.) Euphorbiaceae. *S.* The following garden hybrids, derived from *A.*

*Sanderiana*, *A. Hamiltoniana*, *A. Godseffiana*, and *A. marginata*, are recorded :—*A. Dorotheae*, *A. Jursiana*, *A. Kalbreyerae*, *A. Ledieniana*, *A. Poschingerae*, *A. Ravenae*, *A. Siebertiana*, *A. Teupeliana*, and *A. Werneriana*. (*H. A.* Sandhack, Mehlem-on-Rhein; Gebrüder Teupel, Quedlinburg, Germany.)

*Acer caudatum var. multiserratum.* (*M. D. G.* 1911, 244.) Sapindaceae. *H.* Tree 30-50 ft. high. Leaves 3-5 in. across, 7-lobed; lobes sharply doubly serrate. Flowers in erect narrow panicles. Central China. (Arnold Arboretum, Boston, U.S.A.; *H. A.* Hesse, Weener, Hanover.)

*Acer laevigatum.* (*M. D. G.* 1911, 244.) *H.* A semi-evergreen tree up to 50 ft. high. Leaves oblong, 3-5 in. long, entire, leathery, glabrous, strongly net-veined. Fruits up to 1½ in. long, in pendulous panicles. Himalaya; China. (*H. A.* Hesse, Weener, Hanover.)

*Acer neglectum elongatum.* (*M. D. G.* 1911, 423.) *H.* Leaves deeply 3-lobed, long, dark green, with red veins and petiole; lobes again slightly lobed, long-acuminate, undulate. (*F.* Graf von Schwerin, Wendisch-Wilmersdorf, Germany.)

*Acer Pseudoplatanus globosum.* (*M. D. G.* 1911, 424.) *H.* A densely branched form. (Geelhaar, Lawnsken-Juditten, Germany.)

*Acineta Moorei.* (*B. M. t.* 8392.) Orchidaceae. *S.* A new species distinguished from *A. Hrubyana* by the



densely spotted flowers, which have distinctly broader lateral lobes to the lip. The flowers are subglobose, straw-coloured, with brown spots. South America. (Glasnevin B. G.)

**Aciphylla latifolia.** (*B. M. t. 8407.*) Umbelliferae. H. A robust almost glabrous herb. Stem 3-7 ft. high. Leaves thick, leathery, the radical ones long-stalked, ovate, twice pinnatisect, 1-2 ft. long; segments ovate-lanceolate, with somewhat spiny tips. Umbels compound, axillary and terminal, stalked, 2½-4 in. across; bracts and bracteoles linear. Flowers purple, in the plant figured male only. Calyx-teeth conspicuous. Auckland and Campbell Islands. (T. A. Dorrien Smith.)

**Aciphylla Traversii.** (*G. C. 1911, 1. 106.*) H. Similar to *A. squarrosa*, but it does not grow so high, and the leaflets of the pinnate leaves are broader (¼-½ in. broad). Inflorescence about 2 ft. high. Flowers greenish. Chatham Islands. (Glasnevin B. G.)

**Adenia venenata.** (*B. T. O. 1911, 289.*) Passifloraceae. S. Perennial. Stem much thickened at the base. Branches slender, long, climbing. Leaves small, 5-lobed, pale green, glaucous, with a large gland at the base. Flowers dioecious. Corolla tubular, yellowish-white, 5-lobed. Arabia; Tropical Africa. (Palermo B. G.) [*Modecca.*]

**Adioda.** (*G. C. 1911, 1. 177.*) Orchidaceae. G. *Adioda* "St. Fuscien" is the name given to a garden hybrid between *Ada aurantiaca* and *Cochlidia Noetzeliana*. (H. Graire, Amiens.)

**Aerides Crispianum.** (*G. C. 1911, xlix. 332.*) Orchidaceae. S. "A dark rose-flowered species of the *A. Savageanum* class." Country not stated. (F. Sander & Sons.)

**Aerides pallidum.** (*O. R. 1911, 231.*) S. A graceful plant having white flowers with the apex of the spur yellowish. A re-introduction. Timor. (Stuart Low & Co.)

**Agapanthus inapertus.** (*B. T. O. 1911, 187.*) Liliaceae. G. Easily distinguished from *A. umbellatus* by having the funnel shaped flowers almost closed at the apex, and blackish-purple anthers with pale greyish-blue pollen. See *Bull. Soc. Bot. Genève*, 2me série, ii. 194, f. Eastern Transvaal. (W. Barbey, Pierrière, Geneva.)

\***Alloplectus hirsutus.** (*K. B. 1911, 346.*) Gesneriaceae. S. Herb about 1½ ft. high, branched from the base. Stems erect, fleshy, shortly villous. Leaves oblanceolate, about 6 in. long, 2½ in. broad, more or less bullate; petiole ¾-1½ in. long. Cymes sessile, 4-8-flowered. Calyx-segments ovate-lanceolate, about ¾ in. long. Corolla pale yellow, about 1½ in. long; limb ¾ in. across. Peru. (F. Sander & Sons; Kew.)

\***Alloplectus pallidus.** (*K. B. 1911, 346.*) S. Herb about 1½ ft. high, branched from the base. Stems erect, fleshy, shortly pilose. Leaves opposite, ovate-lanceolate, 6-10 in. long, 2½-4½ in. broad, crenate-serrate; petiole ½-¾ in. long. Cymes 3-6-flowered; pedicels about 1 in. long. Calyx-segments ovate, about 1 in. long. Corolla creamy-white, with purple blotches and lines inside the tube; tube including the spur 2 in. long; limb 1½ in. across. Peru. (F. Sander & Sons; Kew.)

\***Alnus sitchensis.** (*Späth Cat. 1911-12, n. 148, 78.*) Cupuliferae. H. A species which has long been confused with *A. Alnobetula*. A small tree with almost horizontal branches; bark greenish-grey, densely whitish-punctate. Leaves ovate, about 3 in. long, acute, sinuately lobed, doubly serrate, lustrous beneath. Stamens 4. Nut broadly winged. See *Sargent, Silva*, xiv. 61, t. 727. North-western America. (L. Späth, Berlin.)

\***Amberboa muricata rosea.** (*R. H. B. 1911, 29, f.*) Compositae. H. A much-branched annual, 1½-2 ft. high. Peduncles long. Flower-heads 2-2½ in. across, bright rose. (Haage & Schmidt, Erfurt.) [= *Volutarella muricata*, Benth. & Hook. f. var.]

**Ampelopsis Tweediana.** (*B. T. O. 1911, 247, f. 24.*) Ampelidaceae. G. A climbing perennial. Leaves herbaceous, digitately 5-foliate or sometimes 3-foliate; segments obovate-lanceolate or lanceolate, acuminate or caudate, up to 6 in. long and 2½ in. broad, very irregularly incised-serrate; petiole about 2 in. long. Cymes 100-150-flowered. Corolla scarlet. This is *Cissus Tweediana*, Planch. and *Vitis Tweediana*, Baker. Argentina. (Florence B. G.)

\***Amygdalus bucharica.** (*Späth Cat. 1911-12, n. 148, 79.*) Rosaceae. H. A small tree with slender spreading branches. Leaves small, elliptic to lanceolate, grey-green. Flowers not described. Turkestan. (L. Späth, Berlin.)

**Anthurium hybridum florentianum.** (*B. T. O.* 1911, 112, t. 3.) Araceae. S. The name given to a collection of garden hybrids obtained from *A. Andreanum*, *A. ornatum*, and other species or hybrids, remarkable for their large mostly brightly-coloured spathes. Short descriptions of 19 varieties are supplied. (*R. Scuola di Pomologia e Orticoltura, Florence.*)

**Anthurium watermaliense.** (*T. H.* 1911, 658.) S. Apparently an ally of *A. Andreanum*, remarkable in having spathes of a metallic black; they are furrowed, and the spadix is white, with a tinge of brown at base and apex. Andes of Colombia. (Duchesne & Lanthoine, Watermael, Belgium.)

**Ariocarpus Lloydii.** (*M. K.* 1911, 170.) Cactaceae. G. Usually confused with *A. fissuratus*, from which it differs in the size and shape of the tubercles, which are about  $\frac{3}{4}$  in. broad at the base, the upper portion rounded, obtuse, broader than thick, the whole surface fissured, but not in definite bands as in *A. fissuratus*. See *Contr. U. S. Nat. Herb.* xiii, 308, t. 63. Mexico.

**Arisaema consanguineum** var. **giganteum.** (*B. T. O.* 1911, 227, f. 21.) Araceae. G. Differs from the type in being larger in all its parts. Petiole  $2\frac{3}{4}$ –4 ft. long. Leaf-segments 14–16 in. long,  $2\frac{1}{2}$ –3 in. broad, with a filiform appendage about  $2\frac{1}{2}$  in. long. Spathe about 8 in. long, with a filiform appendage about as long as the spathe itself. Himalaya; North China. (A. Biondi, Castelfalfi, Florence.)

**Arisaema Fargesii.** (*R. H.* 1911, 197, ff. 198–199.) G. A new species allied to *A. pictum*, under which name it is described in the list of 1910. Western China. (M. L. de Vilmorin, Les Barres, France.)

\***Aristolochia kewensis.** (*G. C.* 1911, 1. 300, suppl. ill.) Aristolochiaceae. S. A garden hybrid between *A. trilobata* and *A. brasiliensis*. (Kew.)

\***Artemisia sacrorum viridis.** (*R. H.* 1911, 556, f. 218; *R. H. B.* 1911, 365, f.) Compositae. H. A vigorous-growing annual with pyramidal habit, elegant dark green foliage, and very numerous yellowish-white flower-heads produced in autumn. China. (F. C. Heinemann, Erfurt.)

**Asparagus Hatcheri.** (*G. C.* 1911, xlix, 170; *M. G. Z.* 1911, 99, f.) Liliaceae. S. Apparently a form of *A.*

*plumosus* stronger in growth than the form *nanus*, with less delicate lateral branches, which are borne more regularly.

**Asplenium decorum.** (*G. C.* 1911, xlix, 300; *G. M.* 1911, 379.) Filices. G. A sport from *A. bulbiferum*. It is more compact in growth than the type. (H. B. May & Sons.)

**Aster tataricus** var. **Petersianus.** (*Gfl.* 1911, 218, t. 1591.) Compositae. H. Leaves narrower than in the type, stiffly hairy beneath, entire or slightly toothed and ciliate with stiff hairs. Flower-heads with pale blue ray-florets and yellow disc-florets. China. (Berlin-Dahlem B. G.)

**Azalea Eeckhautei.** (*R. H. B.* 1911, col. t.) Ericaceae. G. A garden hybrid between *A. linearifolia* and a form of *A. indica*. (L. Eeckhaute, St. Denis-Westrem, Belgium.) [*Rhododendron*.]

**Beaumontia fragrans.** (*G. C.* 1911, xlix, 306, suppl. ill.) Apocynaceae. G. An evergreen climbing shrub, with large opposite leaves and white fragrant shallow bell-shaped flowers about 4 in. across. Cochinchina. (E. D. Sturtevant, Los Angeles, California.)

**Begonia Balmisiana** var. **mitellifolia.** (*R. H.* 1911, 42, f. 13.) Begoniaceae. G. Rootstock tuberous. Stem simple, erect, fleshy, purplish, pubescent. Leaves petiolate, reniform, with rounded basal lobes, obscurely lobed, irregularly serrate, pubescent and dull green above, whitish-tomentose beneath; floral leaves very small, sessile; petiole reddish-tomentose. Inflorescence a terminal raceme, with the upper flowers male and 2 to 4 of the lower ones female. Pedicels rather long, with a cluster of very small bulbils at the base of each. Flowers pale rose, small, the male with 2 sepals and 2 petals. Fruits unequally winged. Mexico. (Montpellier B. G.)

\***Berberis polyantha.** (*Veitch, N. H. P.* 1911, 4, f.) Berberidaceae. H. A deciduous shrub 5–6 ft. high. Leaves obovate, bright green, borne in clusters of about 8 each. Flowers yellow. Fruits coral red. Western China. (J. Veitch & Sons.)

\***Berberis verruculosa.** (*K. B.* 1911, 327; *G. C.* 1911, 1. 312.) H. A dwarf evergreen bush. Young stems densely covered with small dark warty excrescences. Leaves densely



arranged in fascicles, elliptic-oblong,  $\frac{1}{2}$ - $1\frac{1}{2}$  in. long, leathery, spiny. Flowers golden-yellow, solitary or in few-flowered fascicles. Fruit black, with a blue bloom. Western China. (J. Veitch & Sons.)

\**Betula alnoides pyrifolia*. (Veitch, N. H. P. 1911, 9.) Cupuliferae. H. A deciduous tree, 20-40 ft. high, with ovate acuminate leaves resembling those of a *Pyrus*. Central and Western China. (J. Veitch & Sons.)

*Bidens atrosanguinea hybrida*. (R. H. B. 1911, 29, f.) Compositae. H. H. A garden hybrid between *B. atrosanguinea* (*Dahlia Zimapani*) and *Dahlia Merckii*. (Haage & Schmidt, Erfurt.)

*Bifrenaria melanopoda*. (O. F. 1911, 68.) Orchidaceae. G. A miniature species, with a tuft of angular pseudo-bulbs  $\frac{1}{2}$ - $\frac{3}{4}$  in. high. Leaves rather narrow, 2-4 in. long. Scapes short, slender, bearing 1 or few flowers. Sepals and petals light green, sometimes tinged with brown, about  $\frac{1}{2}$  in. long. Lip flabellate, fringed, white, with rose-purple veins. Spur short, obtuse. A re-introduction. It was in cultivation in 1855. Brazil. (J. O'Brien.)

\**Biophytum Foxii*. (K. B. 1911, 343.) Geraniaceae. G. An erect herb. Stem about 2 in. high, pilose. Leaves 8, in a whorl at the apex of the stem,  $1\frac{1}{2}$ - $3\frac{1}{2}$  in. long.; leaflets in 3 to 6 pairs, the largest  $\frac{3}{4}$ - $1\frac{1}{2}$  in. long and  $\frac{1}{2}$ -1 in. broad. Peduncle  $1\frac{1}{4}$  in. long, many flowered. Corolla white; tube 3 lin. long; lobes reflexed, oblong-obovate, about  $\frac{1}{2}$  in. long. Peru. (Kew.)

*Bougainvillea aurantiaca*. See *B. Lindleyana*.

*Bougainvillea Lindleyana*. (B. T. O. 1911, 80.) Nyctaginaceae. S. A very hairy climbing plant, with strong curved spines. Leaves obovate-rounded, acute, very hairy, slightly undulate on the margin. Bracts rather large, elliptic, shortly acuminate, cinnabar-coloured. This, of which *B. aurantiaca*, Hort. is given as a synonym, is said to be allied to *B. pomacea*, a Brazilian species. *B. Lindleyana* is referred to as a garden name, but the origin of the plant is not stated. (Palermo B. G.)

*Brasso-cattleya Abekenii*. (O. W. i. 223.) Orchidaceae. G. A garden hybrid between. *B.-c. Digbyano-Gigas* and *Cattleya Luddemanniana*. (Charlesworth & Co.)

*Brasso-cattleya amabilis*. See *B.-c. Vilmoriniana*.

*Brasso - cattleya gesneriaeflora*. (J. H. F. 1911, 565.) S. A garden hybrid between *Brassavola fragrans* and *Cattleya maxima*. (C. Maron, Brunoy, France.)

*Brasso - cattleya Vilmoriniana*. (G. C. 1911, xlix. 98, 146; O. R. 1911, 95.) G. A garden hybrid between *Cattleya Mossiae* and *B.-c. Leemanniae* [= "Mrs. J. Leemann"]. (C. Maron, Brunoy, France.) [Syn. *B.-c. amabilis*; G. C. 1911, xlix. 146. *Laelio-cattleya Vilmoriniana*; R. H. 1911, 75.]

*Brasso-laelia Canari*. (J. H. F. 1911, 452.) Orchidaceae. G. A garden hybrid between *Brassavola Digbyana* and *Laelia xanthina*. (C. Béranek, Paris.)

*Brunsdonna Sanderæ alba*. (G. C. 1911, 1. 210.) Amaryllidaceae. G. or H. H. Apparently a garden hybrid between a *Brunsvigia* and *Amaryllis Belladonna*. (F. Sander & Son.) [= *Amaryllis Parkeri alba*.]

\**Buddleia officinalis*. (G. C. 1911, xlix. 201, suppl. ill.; B. M. t. 8401.) Loganiaceae. G. Shrub, 3-8 ft. high, with densely grey-pubescent branches. Leaves oblong-lanceolate to linear-lanceolate, about 4 in. long,  $\frac{1}{2}$ -1 in. broad, densely grey-pubescent beneath; petiole  $2\frac{1}{2}$  lin. long. Flowers in terminal rather crowded panicle-like inflorescences 3-12 in. long. Corolla pale or very pale lilac, with orange throat; tube about 5 lin. long; limb 3 lin. across, 4-lobed. Northern and Central China. (J. Veitch & Sons; Arnold Arboretum, Boston, U.S.A.)

*Buddleia variabilis amplissima*. (R. H. 1911, 117.) H. Inflorescences very large, 3 or 5 together. Flowers large, deep violet, with a yellow eye. (V. Lemoine & Son, Nancy.)

*Bulbophyllum chrysocephalum*. (Orchis, 1911, 60, ff. 31-39.) Orchidaceae. S. A dwarf plant resembling *B. angustifolium* in habit. Pseudo-bulbs ovoid, compressed, about  $\frac{3}{4}$  in. long, 1-leaved. Leaves elliptic-ligulate, scarcely 4 in. long. Peduncle  $1\frac{1}{4}$ - $1\frac{1}{2}$  in. long. Flowers yellow, golden-yellow at the tips of the segments, larger than in *B. angustifolium*. Probably South-eastern Asia. (Baron M. von Fürstenberg, Hugenpoet, Essen, Germany.)

**Bulbophyllum cylindraceum.** (*G. C.* 1911, xlix, 3, f. 1.) *S. Pseudobulbs rudimentary. Leaves oblong-lanceolate, from half as long to nearly as long as the inflorescences. Flowers variously coloured from pink to deep purple, flattened, in dense cylindrical spikes. Himalaya; Burma. (F. Sander & Sons.) [Syn. B. imbricatum, Griff., not of Lindley.]*

**Bulbophyllum lepidum.** (*Orchis*, 1911, 52, col. t.) *S. Similar to Cirrhopetalum Cumingii. Pseudobulbs ovate, 4-angled, about  $\frac{3}{4}$  in. long, 1-leaved. Leaves lanceolate,  $5\frac{1}{2}$ -7 in. long, 1-1 $\frac{3}{4}$  in. broad, obtuse. Peduncle slender, about 8 in. long, dark red-brown. Inflorescence umbel-like, the flowers forming a half or three-quarters of a circle. Flowers whitish-yellow, yellow and brown-red. Lateral sepals coherent, lanceolate, about 1 in. long. Petals and lip very small. Java; Borneo. (Breslau B. G.)*

**\*Caladium pubescens.** (*B. M.* t. 8402.) *Araceae. S. A new species distinct from those already in cultivation in being pubescent. Leaves ovate-cordate, 8-12 in. long,  $3\frac{1}{2}$ -9 in. broad; petiole 4-13 in. long. Peduncle about 8 in. long. Spathe 5-6 in. long; tube pale green; blade white inside, greenish-white outside. Peru. (F. Sander & Sons; Kew.)*

**Calanthe Cooksoniae.** (*G. C.* 1911, 1, 350, f. 148; *O. W.* ii. 69, 70, f.) *Orchidaceae. S. A garden hybrid between C. Harrisii and C. vestita rubro-oculata gigantea. (Mrs. N. C. Cookson.)*

**\*Campanula acutangula.** (*G. C.* 1911, 1, 220, f. 104.) *Campanulaceae. H. A dwarf species, with trailing stems arising from a rosette of petiolate leaves resembling those of the ivy. Stem-leaves small, rounded, toothed. Flowers solitary on each stem, rather large, star-like, purplish-blue. The species is closely allied to C. Morettiana, but the plant is not so hairy and the flowers are flatter. Northern Spain. (Kew.) [C. arvensis, Lag.]*

**Campanula longistyla** var. *parviflora.* (*R. H.* 1911, 548, f. 215 & col. t.) *H. Flowers slightly smaller than in the type. Caucasus. (Cayeux & Le Clerc, Paris.)*

**\*Carpinus polyneura.** (*K. B.* 1911, 327.) *Cupuliferae. H. An elegant tree reaching a height of 30 ft., remarkable in having its linear silky stipules persistent through the winter. Leaves ovate, acute, slightly cordate*

*at the base, 1-2 $\frac{1}{2}$  in. long,  $\frac{1}{2}$ -1 in. broad, toothed, flat, scarcely plicate, glabrescent above, silky-downy on the principal veins beneath. Central China. (Kew.)*

**\*Catalpa Fargesii.** (*Veitch, N. H. P.* 1911, 9.) *Bignoniaceae. H. A deciduous tree, 40 ft. high. Leaves 5-lobed, glabrous, deep green. Flowers pale purple. Western China. (J. Veitch & Sons.)*

**Catasetum Cliftonii.** (*G. C.* 1911, 1, 32, 96; *G. M.* 1911, 593.) *Orchidaceae. S. Probably a form of C. Bungeothii. It differs in having a distinctly 3-lobed lip, with a large prominent triangular orange-coloured callus. Flowers greenish to pale yellow. Lip slightly fimbriate. (Sir Trevor Lawrence; Sir J. Colman.)*

**Catasetum Colmaniae.** (*G. C.* 1911, 1, 18.) *S. "A fine yellow flower with a trilobed lip stained with deep crimson." (Sir J. Colman.)*

**Catasetum scurra.** (*O. R.* 1911, 36.) *S. Very nearly allied to C. Warszewiczii, and possibly a white variety of that species. It has a hanging inflorescence of about 5 flowers which are white with green veins, becoming violet at the base of the spur inside. A re-introduction. Demerara. (Mrs. F. B. Lipscomb.)*

**Cattleya Alwynii.** (*O. R.* 1911, 348.) *Orchidaceae. G. A garden hybrid between C. Adonis and C. amabilis. (C. Alwyn Harrison.)*

**Cattleya Blackii.** (*G. C.* 1911, xlix, 45.) *G. A garden hybrid between C. Mendelii alba and C. Gaskelliana alba. (R. G. Thwaites.)*

**Cattleya Butleri.** (*O. R.* 1911, 368.) *G. A garden hybrid between C. citrina and C. Schilleriana. (W. W. Butler.)*

**Cattleya Hassallii.** (*G. C.* 1911, 1, 282.) *G. A garden hybrid between C. labiata and C. Frederickiae ("Empress Frederick.") (Hassall & Co.)*

**Cattleya Holdenii.** (*O. R.* 1911, 94.) *G. A garden hybrid between C. intermedia alba and C. Warneri alba. (J. J. Holden.)*

**Cattleya Juliettae.** (*T. H.* 1911, 537.) *G. A garden hybrid between C. Mossiae alba and C. Warneri alba. (F. Lambeau, Brussels.)*



**Cattleya lythamensis.** (*G. C.* 1911, 1. 245.) *G.* A garden hybrid between *C. bicolor* Grossii and *C. Gaskelliana*. (S. Larkin.)

**Cattleya micans.** (*G. C.* 1911, 1. 137.) *G.* A garden hybrid between *C. Warszewiczii* and *C. Warriniana*. (F. Sander & Sons.)

**Cattleya Mossiae aureola.** (*G. C.* 1911, xlix. 376; *G. M.* 1911, 452.) *G.* Flowers large, blush-white; labellum broad, crimped, having the central area tinged and veined with chrome-yellow and with a few purple markings. (Sir Trevor Lawrence.)

**Cattleya Mossiae Floryae.** (*G. C.* 1911, xlix. 376.) *G.* Flowers pure white, with a slight pink shade on the lip, and of excellent shape. (Tracy's Nursery.)

**Cattleya Trianae brunoyensis.** (*J. H. F.* 1911, 565.) *G.* Sepals and petals mauve, the latter  $4\frac{1}{2}$  in. long and about  $3\frac{1}{2}$  in. broad. Lip of very fine form, violet-purple at the base, yellow in the throat. (C. Maron, Brunoy, France.)

**Cattleya Trianae Goodsonii.** (*G. C.* 1911, xlix. 107.) *G.* A richly-coloured variety. Petals flushed with deep rose. (H. S. Goodson.)

**Cattleya versicolor.** (*O. W.* ii. 14.) *G.* A garden hybrid between *C. velutina* and *C. Mossiae*. (F. Sander & Sons.)

**Cattleya vivicans.** (*G. C.* 1911, 1. 137.) *G.* A garden hybrid between *C. velutina* and *C. Fabia*. (F. Sander & Sons.)

\***Celastrus hypoglaucus.** (*Veitch*, *N. H. P.* 1911, 9.) Celastraceae. *H.* A deciduous species, having the young wood covered with a waxy bloom. Leaves large, deep pea-green above, glaucous beneath. Central China. (J. Veitch & Sons.)

\***Celmisia Brownii.** (*Gard.* 1911, 274; *G. M.* 1911, 610.) Compositae. *G.* One of the largest-growing species. Leaves petiolate, leathery, 10-16 in. long, 3 in. broad, tomentose beneath. Flower-heads 3 in. across. New Zealand. (Kew.)

\***Celmisia hieracifolia.** (*G. M.* 1911, 610.) *G.* A small-growing species. Leaves obovate-oblong to linear-oblong,

1-5 in. long,  $\frac{1}{2}$ -1 in. broad, with a buff-coloured tomentum beneath. Flower-heads about  $1\frac{1}{2}$  in. across. New Zealand. (Kew.)

\***Celmisia holosericea.** (*Gard.* 1911, 274, f.; *G. M.* 1911, 610.) *G.* A tufted free-flowering species with long lanceolate leaves, which are deep green above and white-silky beneath. Peduncles about 18 in. long. Flower-heads 3 in. across, white, with a yellow disc. New Zealand. (Kew.)

\***Celmisia Mackayi.** (*G. M.* 1911, 610, as *C. Mackayi*.) *G.* Leaves linear-lanceolate, acuminate, 6-20 in. long, 2-4 in. broad, glabrous and green on both surfaces. Flower-heads about 2 in. across, with long white ray-florets. New Zealand. (Kew.)

\***Celmisia petiolata.** (*Gard.* 1911, 274; *G. M.* 1911, 610.) *G.* Robust in growth. Leaves narrow, almost membranous, with long slender purplish petioles. Flower-heads white, with yellow disc. New Zealand. (Kew.)

\***Celmisia verbascifolia.** (*G. M.* 1911, 610.) *G.* A strong-growing handsome species. Leaves leathery, lanceolate to oblong-lanceolate or spatulate-lanceolate, 8-13 in. long, covered beneath with whitish down. Flower-heads about 4 in. across. New Zealand. (Kew.)

\***Celmisia viscosa.** (*G. M.* 1911, 610.) *G.* A tufted plant, somewhat like a *Primula* in habit. Leaves short, narrow, erect, grooved, viscid. Flower-heads about  $\frac{1}{2}$  in. across, with short ray-florets. New Zealand. (Kew.)

**Celtis Biondii.** (*M. D. G.* 1911, 241.) Urticaceae. *H.* Tree or shrub, branched from the base. Leaves broader than in *C. Bungeana*, dark green above, cream-grey beneath, deeply serrate, rather long-stalked. Fruits dark blue, small, round, long-stalked. Central China. (C. Sprenger, Naples.)

**Celtis Bungeana.** (*M. D. G.* 1911, 241.) *H.* A small densely leafy tree, with slender branches. Leaves oblong-rounded, deeply toothed or sometimes entire at the base, shining green above, somewhat cream-coloured beneath, beautifully net-veined. Fruits round, bluish, mostly solitary, long-stalked. China. (C. Sprenger, Naples.)

**Cereus coeruleus** var. *melanacanthus.* (*B. K. t.* 127.) Cactaceae. *G.* Distinguished as a variety by its

large shining black spines. Argentina. (Berlin-Dahlem B. G.)

**Cereus Damazioi.** (*M. K.* 1911, 91, 102.) *G.* Dwarf, articulate-branched, green. Joints globose or elliptic, small. Ribs 8-11, subcrenate. Areoles rather crowded, small, tomentose. Spines numerous, small, not pungent, dark purple or white. Flowers lateral, relatively large, funnel-shaped; outer segments linear-lanceolate, green; inner narrowly lanceolate, white. Brazil. (Berlin-Dahlem B. G., etc.)

**Ceropegia Barklyi** × **Rendallii.** (*G. C.* 1911, 1. 382.) Asclepiadaceae. *S.* A garden hybrid. (W. E. Ledger.)

\***Ceropegia Rothii.** (*G. C.* 1911, 1. 382; *M. K.* 1911, 8.) *S.* A garden hybrid between *C. Sandersonii* and *C. radicans*. (P. Roth, Bernburg, Germany; W. E. Ledger.)

**Chamaecyparis Lawsoniana knowfieldensis.** (*M. D. G.* 1911, 172.) Coniferae. *H.* A compact-growing form, with fern-like crested and drooping branches. (*H. den Ouden* & Son, Boskoop, Holland.)

**Chelone barbata** vars. (*R. H.* 1911, 567-568.) Scrophulariaceae. *H.* The following varieties are described:—*amarantina*, *aurora*, *gloriosa*, *multiflora rosea*, *purpurea* and *salmonea*. (E. Ganguin, Orleans.) [*Pentstemon barbatus*, Nutt., vars.]

**Chrysanthemum multiflorum.** (*Jard.* 1911, 344.) Compositae. *H.?* This is stated to be a cross between a *Chrysanthemum* with single flowers and *C. Pallasianum*. It has greenish-white flowers. (Cayeux & Le Clerc, Paris.)

**Cirrhopetalum caudatum.** (*O. R.* 1911, 318.) Orchidaceae. *S.* A dwarf species with ovoid pseudobulbs borne about an inch apart on a creeping rhizome. Leaves ovate. Scapes scarcely more than 1 in. high. Flowers whitish, arranged in umbels. Dorsal sepals short; lateral sepals tail-like, about as long as the scapes. North-eastern Himalaya; Khasia Hills. (Glasnevin B. G.)

\***Cladothamnus pyrolaeiflorus.** (*B. M.* t. 8353.) Ericaceae. *H.* Shrub, 4-10 ft. high. Leaves almost sessile, lanceolate or obovate-lanceolate,  $\frac{3}{4}$ -1 in. long,  $\frac{3}{8}$ - $\frac{2}{5}$  in. broad. Flowers terminal, usually solitary, on leafy branches. Calyx-lobes leafy, lanceolate or linear-oblong, about  $\frac{2}{5}$  in. long. Petals oblong, blunt,  $\frac{3}{8}$  in.

long, yellowish-red or yellowish-rose. North-west America. (T. Smith, Newry.)

\***Clematis aristata** var. **Dennisae.** (*B. M.* t. 8367.) Ranunculaceae. *G.* Another name for the plant included in the list of 1907 as *C. Sanderi*.

\***Clematis chrysocoma.** (*B. M.* t. 8395.) *H. H.* Allied to *C. montana*, but it is a shrub of low stature, with erect or decumbent branches, and has a coarser and denser pubescence. The flowers, which are abundantly produced from the old wood, are white, with a rosy margin, about as large as those of *C. montana*. Western China. (M. L. de Vilmorin, Les Barres, France; Kew.)

\***Clematis Durandi.** (*G. M.* 1911, 592.) *H.* Of garden origin. It is possibly a hybrid between *C. integrifolia* and a form of *C. lanuginosa*, and has been catalogued by Simon-Louis frères, Plantières, Metz, as a variety of the first named. It is robust in growth, with larger leaves than are usual in the garden varieties, and bluish-purple flowers 4 in. across.

\***Clematis Jouiniana.** (*Späth Cat.* 1911-12, n. 148, 87.) *H.* A garden hybrid between *C. Davidiana* and *C. Vitalba*. (L. Späth, Berlin.)

**Clematis Thunbergii.** (*G. C.* 1911, 1. 253, f. 112.) An ornamental species forming long graceful growths which produce flowers at all the nodes. Leaves subbipinnate, glabrous; leaflets distant, stalked, broadly ovate, acuminate, few-toothed. Panicles much longer than the leaves. Flowers white, fragrant. Sepals spreading, lanceolate, acuminate. South Africa. (Cambridge B. G.)

**Clitoria albiflora.** (*B. P.* vii. 97; *Fedde, Repert.* ix. 251.) Leguminosae. *S.* A dwarf climbing herb. Leaves rather long-stalked, 5-foliolate; leaflets ovate, nearly 1 in. long,  $\frac{3}{4}$  in. broad. Flowers solitary. Calyx-lobes broadly lanceolate, about  $\frac{1}{2}$  in. long. Corolla white, with the standard yellowish-white outside and marked by a citron-yellow blotch in the middle inside, twice as long as the calyx. Italian Somaliland. (Palermo B. G.)

**Cnicus raphilepis.** (*M. G. Z.* 1911, 558, f.) Compositae. *H.?* A handsome plant with deeply lacinate spiny-toothed leaves about 2 ft. long and grey-tomentose beneath. Stem brown-red, much-branched. Flower-heads 3-3 $\frac{1}{2}$  in. long, with scarlet spine-



tipped involueral bracts. Flowers scarcely exserted. Filaments carmine. Mexico. (Darmstadt B. G.)

**Cochlioda Floryi.** (*O. R.* 1911, 144.) Orchidaceae. G. Supposed to be a natural hybrid between *C. Noetiziana* and *C. rosea*. Peru. (Tracy's Nursery.)

**Coelogyne burfordiense.** (*G. C.* 1911, xlix. 333; *G. M.* 1911, 414.) Orchidaceae. S. A garden hybrid between *C. asperata* and *C. pandurata*. (Sir Trevor Lawrence.)

**Coelogyne chrysotropis.** (*Orchis*, 1911, 58, ff. 17-22.) S. Pseudobulbs cylindrical-conical, about 2 in. long, 2-leaved. Leaves elliptic, about 6 in. long,  $1\frac{1}{4}$ - $1\frac{1}{2}$  in. broad in the middle. Scape much shorter than the leaves, few-flowered. Sepals oblong, about 1 in. long. Petals narrowly linear, 1 in. long. Lip oblong and concave at the base, 3-lobed in the middle, as long as the sepals; lateral lobes erect, ovate-triangular, ciliate-fimbriate. Sumatra. (Glasnevin B. G.)

**Colchicum Parkinsonii** var. **flavum.** (*G. C.* 1911, 1. 270.) Liliaceae. H. A provisional name for a plant differing from *C. Parkinsonii* in having primrose-yellow flowers with rosy-purple markings towards the base of the segments. Syria. (A. Perry.)

**Collabium nebulosum.** (*G. C.* 1911, xlix. 97.) Orchidaceae. S. Stems fleshy, about 2 in. long, 1-leaved. Leaves broadly ovate, acuminate; petiole rounded. Scape stout, erect, about 2 ft. high. Flowers numerous, in scattered irregular whorls, about  $\frac{1}{2}$  in. long, spurred. Sepals and petals greenish, reddish on the margin. Lip 3-lobed, white, slightly fringed. Java. (Sir J. Colman.)

\***Columnnea gloriosa.** (*B. M. t.* 8378.) Gesneraceae. S. A new species and perhaps the finest yet introduced. An epiphytic perennial herb. Stems prostrate or pendent. Leaves ovate or ovate-oblong,  $\frac{3}{4}$ - $1\frac{1}{4}$  in. long,  $\frac{1}{2}$ - $\frac{3}{4}$  in. broad, shortly stalked. Flowers axillary, solitary. Corolla scarlet and yellow,  $2\frac{1}{2}$ -3 in. long; tube slightly more than 1 in. long; limb distinctly 2-lipped; upper lip hood-like, very broad, 3-lobed; lower lip undivided, oblong, spreading. Costa Rica. (Kew.)

**Corchorus Baldacii.** (*B. P.* vii. 180; *Fedde, Repert.* ix. 347.) Tiliaceae. S. A perennial, woody at the base. Leaves petiolate, linear-elliptic,  $\frac{3}{4}$ -1 in. long, 2- $2\frac{1}{2}$  lin. broad, stellate-pilose above, densely whitish-tomentose beneath.

Flowers solitary, axillary, minute. Italian Somaliland. (Palermo B. G.)

\***Cornus Kesselringii.** (*Späth Cat.* 1911-12, n. 148, 88.) Cornaceae. H. Remarkable for the brown-black bark of its branches and its dark brown young leaves, the latter changing to a deep green. Probably East Asia. (L. Späth, Berlin.)

\***Cornus paucinervis.** (*G. C.* 1911, 1. 94, f. 45.) H. A bushy evergreen, up to 5 or 6 ft. high. Leaves lanceolate, shortly petiolate, about 2 in. long,  $\frac{3}{4}$ - $1\frac{1}{2}$  in. broad, slightly hairy. Flowers creamy white,  $\frac{1}{2}$  in. across or less, in numerous flat terminal clusters about 3 in. across. China. (Hon. Vicary Gibbs.)

**Coryanthes Balfouriana.** (*O. W.* ii. 28, ff.) Orchidaceae. S. Similar to a *Stanhopea* in habit, with a long pendulous scape bearing 2 or 3 large and curiously shaped flowers. Sepals and petals delicate in texture. Lip large, the lower part bucket-shaped. The species appears to be closely allied to *C. maculata*. Peru. (F. Sander & Sons.)

**Cotoneaster ignava.** (*Späth Cat.* 1911-12, n. 148, 89.) Rosaceae. H. Allied to *C. nigra*. Growth ascending, then nodding. Leaves broadly ovate, dull green above, pale grey-green beneath. Flowers reddish-white, in nodding clusters. Fruits purple-violet, as large as a pea. Turkestan. (L. Späth, Berlin.)

**Cotoneaster Silvestrii.** (*M. D. G.* 1911, 242.) H. A tall deciduous shrub. Leaves ovate, shining green above, densely hairy and cream-coloured beneath. Inflorescences few-flowered. Fruits roundish-oval, orange-coloured. Central China. (C. Sprenger, Naples.)

\***Crassula globosa.** (*K. B.* 1911, 356.) Crassulaceae. G. Distinct in having subglobose leaves, resembling small marbles flattened on one side, arranged in about three pairs on each growth. Flowers very small, white, in small crowded heads. Cape Colony. (Kew.)

\***Crassula humilis.** (*K. B.* 1911, 357.) G. Closely allied to *C. globosa*, but its leaves are deltoid-ovate, rather flat or convex on the upper side and obtusely keeled on the back. Flowers white, very small, sessile, in crowded heads. Cape Colony. (Kew.)

\***Crataego-mespilus Asnieresii.** (*Gard.* 1911, 310, f.; *K. B.* 1911, 268, t.) Rosaceae. H. A graft hybrid

between *Crataegus Oxyacantha* and *Mespilus germanica*, produced by a different branch of the same tree from which *C.-m. Dardari* was obtained. It was distributed some years ago by Simon-Louis of Metz under the name of *C.-m.* "Monsieur Jules d'Asnières."

**Crataegus atrocarpa.** (Späth Cat. 1911-12, n. 148, 90.) Rosaceae. H. Near *C. chlorosarca*. A small tree with short thorns, villous branchlets, leaves and inflorescences, and black fruits with green flesh. Country not stated. (L. Späth, Berlin.)

**Crataegus Maximowiczii.** (Späth Cat. 1911-12, n. 148, 91.) H. Differs from *C. chlorosarca* in having very hairy leaves and inflorescences, and black fruits with green flesh which are later in ripening. Manchuria. (L. Späth, Berlin.)

**Crotalaria Tropeae.** (B. P. vii. 174; Fedde, Repert. ix. 320.) Leguminosae. S. An erect or prostrate annual. Leaves 3-foliate; leaflets oblong-linear, entire. Racemes lateral, often 20-flowered or more. Flowers rather small, yellowish, with a golden-yellow standard. Italian Somaliland. (Palermo B. G.)

\***Cyanthus microphyllus.** (G. C. 1911, xlix. 42, f. 23.) Campanulaceae. H. This is the correct name for the plant included in the list of 1905 as *C. binifolius*.

**Cymbidium Alexanderi.** (G. C. 1911, xlix. 174; G. M. 1911, 222.) Orchidaceae. G. A garden hybrid between *C. eburneo-Lowianum* and *C. insigne*. (Sir G. L. Holford.)

**Cymbidium glebelandsense.** (G. C. 1911, xlix. 14.) G. A garden hybrid between *C. Schroederi* and *C. insigne* Sanderi. (J. Gurney Fowler.)

**Cymbidium Gottianum.** (G. C. 1911, xlix. 174, 180, f. 81; G. M. 1911, 222.) G. A garden hybrid between *C. eburneum* and *C. insigne*. (F. Sander & Sons.)

**Cymbidium langleyense.** (G. C. 1911, xlix. 146, f. 66.) G. A garden hybrid between *C. Lowianum* and *C. Devonianum*. (J. Veitch & Sons.) [Syn. *C. Veitchii*; G. C. 1911, xlix. 142; G. M. 1911, 188 f.]

**Cymbidium Lawrenceanum.** See *C. Pauwelsii*.

**Cymbidium Pauwelsii.** (G. C. 1911, xlix. 108.) G. A garden hybrid

between *C. insigne* and *C. Lowianum* concolor. (Th. Pauwels & Co., Meirelbeke, Ghent.) [Syn. *C. Lawrenceanum*; G. M. 1911, 169.]

**Cymbidium Veitchii.** See *C. langleyense*.

**Cypripedium Beyrodtianum.** (Orchis, 1911, 2.) Orchidaceae. S. A natural hybrid. Parentage not recorded. Siam. (O. Beyrodt, Marienfelde, Berlin.)

**Cypripedium Curtisii** × **vexillarium.** (O. R. 1911, 314.) S. A garden hybrid. (A. J. Keeling & Sons.) [*Paphiopedilum*.]

**Cypripedium glauc-insigne.** (G. C. 1911, xlix. 146.) S. A garden hybrid between *C. glaucophyllum* and *C. insigne*, Harefield Hall variety. (Th. Pauwels & Co., Meirelbeke, Ghent.) [*Paphiopedilum*.]

**Cypripedium grittletonense.** (G. C. 1911, l. 381, as *C. grittletonense*.) S. A garden hybrid between *C. Stevensii* and *C. Curtisii*. (Lady Audley Neeld.) [*Paphiopedilum*.]

**Cypripedium Höchbergianum.** (M. G. Z. 1911, 256, f.) S. A garden hybrid between *C. Mastersianum* and *C. glaucophyllum*. (Frankfort Palm Garden.) [*Paphiopedilum*.]

**Cypripedium insigne Hurrellianum.** (O. W. i. 187.) S. A distinct form. Dorsal sepal flat, greenish-yellow, suffused with reddish-brown on the basal half, white at the apex. (Lager & Hurrell, Summit, N.J., U.S.A.) [*Paphiopedilum*.]

**Cypripedium insigne Lagerae.** (O. W. i. 187.) S. Dorsal sepal reddish-brown, suffused towards the edges with greenish-yellow, and with 4 or 5 pink marks at the extreme upper part of the blotch, margined with pure white. (Lager & Hurrell.) [*Paphiopedilum*.]

**Cypripedium luteum.** (G. C. 1911, xlix. 402, f. 178; O. R. 1911, 221.) H. Stem erect, stout, 8-12 in. high, covered with a short curly brown pubescence. Leaves 5 or 6 to each stem, subsessile, ovate, 2½-8 in. long, 1¼-3¼ in. broad, prominently nerved, pubescent. Flowers yellow, 2½-3¼ in. across. Dorsal sepal ovate, 1½-2 in. long. Petals ovate, 1¼-1½ in. long, spreading and slightly reflexed. Lip 1½-2 in. long, 1-1¼ in. broad. Central and Western China. (Arnold Arboretum, Boston, U.S.A.)



**Cypripedium manciunium.** (*G. C.* 1911, l. 403.) S. A garden hybrid between *C. Harrisianum superbum* and *C. Leeanum*. (Rev. J. Crombleholme.) [*Paphiopedilum*.]

**Cypripedium Overtonii.** (*G. C.* 1911, l. 402.) S. A garden hybrid between *C. fulshawense* and *C. Leeanum* "Corona." (R. L. Overton.) [*Paphiopedilum*.]

**Cypripedium Seymourae.** (*G. C.* 1911, l. 443.) S. A garden hybrid between *C. Leeanum Olinkaberryanum* and *C. Fairrianum*. (D. McLeod.) [*Paphiopedilum*.]

**Cypripedium Sladdenii.** See *Paphiopedilum Sladdenii*.

**Cypripedium speciosum.** (*B. M. t.* 8386; *K. B.* 1911, 207.) H. This has been in cultivation for several years, but has been confused with *C. macranthum* and *C. Thunbergii*. Under the latter name it is included in the list of 1908. Japan.

**Datura alba var. africana.** (*B. P.* vii. 108; *Fedde, Repert.* ix. 253.) Solanaceae. H.H. Distinguished from the type by its larger leaves, longer calyx, and by the corolla being glabrous outside. Italian Somaliland. (Palermo B. G.)

\***Deinanthae caerulea.** (*B. M. t.* 8373.) Saxifragaceae. H. A new species which was included in the list of 1903 under the name of *D. bifida*. It differs from the true *D. bifida* in the pubescence of the leaves, in having a paniculate inflorescence without involucre, blue instead of creamy-white or pure white flowers, and a capsule which is deeply conical in the upper part. Central China. (H. J. Elwes.)

**Dendrobium Annae.** (*G. C.* 1911, l. 57; *O. R.* 1911, 288.) Orchidaceae. S. Allied to *D. mutabile*. Flowers large, blush-white, with an orange disc to the lip. Java; Sumatra. (Sir Trevor Lawrence.)

**Dendrobium delicatulum.** (*G. C.* 1911, xlix. 142.) S. Closely allied to *D. speciosum*. Stems slender, bulbiform at the base. Leaves 3 or 4 at the top of the stem, 3-5 in. long,  $\frac{3}{4}$ -1 $\frac{1}{2}$  in. broad, rather leathery, emarginate. Racemes 7-8 in. long, with 8 or 9 fragrant white flowers speckled with purple on the lip. Sepals and petals 6-8 lin. long. Lip with a very short apiculate middle lobe. See *Bailey, Queensl. Flora*, 1527. Queensland. (Sir Trevor Lawrence.)

**Dendrobium Faulhaberianum.** (*Orchis*, 1911, 58, ff. 1-9.) S. Allied to *D. aduncum*. Stems several, slender, up to 20 in. high, leafy. Leaves elliptic-ligulate or elliptic, 2 $\frac{1}{2}$ -3 $\frac{1}{2}$  in. long. Inflorescences lateral, spreading, 5-8-flowered. Flowers violet-rose. Sepals  $\frac{3}{4}$  in. long, oblong- or ovate-lanceolate, the lateral ones forming a mentum scarcely  $\frac{1}{2}$  in. long. Petals elliptic-lanceolate,  $\frac{3}{4}$  in. long. Lip shortly clawed, with the blade concave and subquadrate at the base and slightly 3-lobed above the middle,  $\frac{3}{4}$  in. long. Hainan. (H. Goldschmidt, Essen, Germany.)

**Dendrobium flaviflorum.** (*O. R.* 1911, 239.) S. This introduction from Formosa proves to be the same as the widely distributed *D. aurantiacum*, Rehb. f. in *G. C.* 1887, ii. 98.

**Dendrobium mirandum.** (*G. C.* 1911, xlix. 141.) S. A garden hybrid between *D. Wiganiae* and *D. Thwaitesiae*. (R. G. Thwaites.)

**Dendrobium oakwoodiense.** (*G. C.* 1911, xlix. 141.) S. A garden hybrid derived from *Dendrobium* "T. B. Haywood." (Mrs. N. Cookson.)

**Dendrobium Phalaenopsis Colmanii.** (*G. C.* 1911, l. 247.) S. A large-flowered form. (W. R. Lee.)

**Dendrobium Schuetzei.** (*G. C.* 1911, l. 42.) S. A new species of the *D. Dearei* group. Flowers very large, white. Petals obovate-orbicular. Lip strongly 3-lobed; side lobes broadly rounded; front lobe broadly obovate or nearly orbicular, with a distinct apiculus. Country not stated. (F. Sander & Sons.)

**Dendrobium undulatum Broomfieldii.** (*O. R.* 1911, 316.) S. Flowers pale greenish-yellow and rather smaller than in the type. Northern Australia. (Sir Trevor Lawrence.)

**Deutzia crenata latifolia.** (*R. H.* 1911, 117.) Saxifragaceae. H. A garden hybrid between *D. crenata candidissima plena* and *D. Vilmorinae*. (V. Lemoine & Son, Nancy.)

**Deutzia discolor candida.** (*R. H.* 1911, 118.) H. A garden hybrid between *D. scabra* and a hybrid of *D. Lemoinei*. (V. Lemoine & Son, Nancy.)

**Deutzia discolor excellens.** (*R. H.* 1911, 118.) H. A garden hybrid between *D. discolor grandiflora* and *D. Vilmorinae*. (V. Lemoine & Son, Nancy.)

**Deutzia longifolia.** (*M. D. G.* 1911, 244.) *H.* One of the finest *Deutzias*. Leaves lanceolate,  $2\frac{1}{2}$ – $3\frac{3}{4}$  in. long, rather thick, whitish beneath. Flowers similar to those of *D. discolor* var. *purpurascens*, in large loose and broad panicles. Western China. (Arnold Arboretum, Boston, U.S.A.; H. A. Hesse, Weener, Hanover.)

**Diacattleya Sanderae.** (*G. C.* 1911, xlix. 269, 290, f. 131.) Orchidaceae. *G.* A garden hybrid between *Cattleya Mendelii* and *Diacrium bicornutum*. (F. Sander & Sons.)

\***Dissotis plumosa.** (*G. M.* 1911, 644.) Melastomaceae. *G.* Shoots long and slender, densely clothed with small deep green leaves. Flowers bright magenta-rose,  $1\frac{1}{2}$  in. across. West Tropical Africa. (Kew.)

**Dombeya Coria.** (*R. H.* 1911, 84, col. t.) Sterculiaceae. *G.* A tall tree. Leaves cordate or subtrilobate, 6 in. long, 5 in. broad, acuminate, unequally toothed or crenulate, glabrous above, pubescent beneath. Inflorescence an umbel-like cyme as long as the leaves. Flowers  $2\frac{1}{2}$  in. across, on slender pedicels, lilac-rose. Madagascar. (Paris B. G.)

**Dracaena deremensis Warneckii.** (*G. C.* 1911, l. 17, f. 15; *G. M.* 1911, 516, 523, f.) Liliaceae. *S.* Leaves about 1 ft. long and 2 in. broad, deep green, with a narrow longitudinal band of white near the margin on both sides, paler green in the middle. Tropical Africa. (Berlin - Dahlem B. G.; J. Veitch & Sons.)

**Echeveria bifurcata.** (*M. G. Z.* 1911, 75, f. 9.) Crassulaceae. *G.* Chiefly of botanical interest. Rosettes rather lax, few-leaved. Leaves lanceolate, acuminate, greenish with a reddish tint. Flowering-stem forked, bearing 14–16 flowers which are bright reddish above and paler below. Mexico. (Darmstadt B. G.)

**Echeveria montana.** (*M. G. Z.* 1911, 75, f. 7.) *G.* Leaves hoary, broadly cuneate, rounded or truncate at the apex, apiculate, red-bordered, in dense rosettes 6– $7\frac{1}{2}$  in. across. Flowers yellow-red outside, yellow inside. Mexico. (Darmstadt B. G.)

**Echinocactus Gürkeanus.** (*M. K.* 1911, 132, f.) Cactaceae. *G.* Stem scarcely  $1\frac{1}{2}$  in. high, at first simple, afterwards sparingly proliferous. Ribs 9, with chin-like glaucous tubercles. Spines 5, all radial, unequal,  $2\frac{1}{2}$ –6 lin. long, rough, yellowish, brownish-red at the base. Flowers yellow, up to

2 in. long and almost  $1\frac{1}{2}$  in. across. Bolivia. (E. Heese, Gr.-Lichterfelde, Berlin.)

**Echinocactus horizontalonius** var. **obscurispina.** (*M. K.* 1911, 181, f.) *G.* Differs from the type in its spines. It has 8 to 10 radial spines to each areole, the upper 6 or 7 being grey, with very dark violet tips, and the lower 3 very dark violet, with somewhat paler tips, more or less curved, the lateral ones somewhat flattened and the middle one very much flattened. Mexico. (R. Graessner, Perleberg, Germany.)

**Echinocactus nidulans.** (*M. K.* 1911, 119.) *G.* Stem simple, depressed-globose, bearing at the summit numerous stout spines  $2\frac{1}{2}$  in. long and copious white woolly hairs. Ribs 20–25, broken up into thick tubercles about  $\frac{3}{4}$  in. long. Spines about 15, very unequal, 5–10 lin. long. Flowers yellowish-white,  $1\frac{1}{2}$  in. long,  $\frac{3}{4}$  in. across. Ovary furnished with small green finely ciliate scales. Mexico. (F. De Laet, Contich, Belgium.)

**Echinopsis Eyriesii** var. **grandiflora.** (*M. K.* 1911, 186.) Cactaceae. *G.* Differs from the type in having larger dark rose-red flowers. Brazil. (R. Emskötter, Magdeburg, Germany.)

**Echinopsis rhodotricha** var. **argentinensis.** (*M. K.* 1911, 188.) *G.* Distinguished from the type by the dull dark grey-green colour of the stem, which is elongated-globose rather than cylindric in shape. Radial spines nearly always 7. Argentina.

**Epicattleya nemorale-Gigas.** (*G. C.* 1911, xlix. 78.) Orchidaceae. *G.* A garden hybrid between *Epidendrum nemorale* and *Cattleya Warscewiczii* (*Gigas*). (Sir Trevor Lawrence.)

**Epicattleya salmonicolor.** (*G. C.* 1911, xlix. 308.) *G.* A garden hybrid between *Cattleya Mendelii* and *Epidendrum aurantiacum*. (P. Wolter, Magdeburg, Germany.)

**Epidendrum Lambda.** (*O. R.* 1911, 240.) Orchidaceae. *G.* Closely allied to *E. fragrans* and differing chiefly in the colour of the flowers. Sepals and petals light salmon colour, with greenish tips to the former. Lip cream-yellow, with violet lines; crest distinctly velvety. Colombia. (Mansell & Hatcher.)

**Eremurus Olgae alba.** (*G. C.* 1911, l. 57; *G. M.* 1911, 556.) Liliaceae.



- H. A variety with pure white flowers. It was at first supposed to be distinct and was named *E. Setonii alba*. North Persia. (King's Acre Nurseries, Hereford.)
- Eremurus Setonii alba.** See *E. Olgae alba*.
- Eria lanata.** (*G. C.* 1911, xlix, 142.) Orchidaceae. S. A pretty species with spikes of yellowish-green flowers hairy on the outside. Sikkim Himalaya. (Mansell & Hatcher.) [In *Hook. f. Fl. Brit. Ind.* v. 801, this plant is treated as a variety of *E. flava*, Lindl., differing from the type in having smaller flowers with narrower lip, the midlobe purplish with thickened nerves on the disc.]
- Eria mysorensis.** (*G. C.* 1911, l, 95.) S. A small pretty species bearing white flowers with purple and yellow lip. India. (Sir Trevor Lawrence.)
- Erica Williamsii.** (*G. C.* 1911, l, 388.) Ericaceae. A natural hybrid between *E. Tetralix* and *E. vagans*. See *K. B.* 1911, 378, Cornwall. (P. D. Williams.)
- \*Euptelea Davidiana.** (*Veitch, N. H. P.* 1911, 9.) Trochodendraceae. H. A deciduous tree, 10-20 ft. high, with orbicular leaves which become brightly coloured in the autumn. Flowers insignificant. Western China. (J. Veitch & Sons.)
- \*Fagus japonica.** (*K. B.* 1911, 330.) Cupuliferae. H. A small deciduous tree or bush, silky hairy on the branchlets. Leaves oval, ovate or sometimes rhomboidal, 2-2½ in. long, 1-1½ in. broad, silky hairy when young, finally glabrescent. Involucre 4-lobed, covered with short stiff spines, remarkable in being much shorter than the nut. Japan. (Arnold Arboretum, Boston, U.S.A.; Kew.)
- Fagus sylvatica aureo-pendula.** (*M. D. G.* 1911, 423.) H. Branches pendulous. Leaves at first golden, afterwards golden-green. (J. G. van der Bom, Oudenbosch, Holland.)
- \*Fokienia Hodginsii.** (*G. C.* 1911, xlix, 66, 253, ff. 32-33, 111; *K. B.* 1911, 328.) Coniferae. H. ? The type of a new genus which is closely allied to *Libocedrus* and *Cupressus*. Tree attaining 40 ft. in height, glabrous. Foliage in flattened "branchlet-systems," each leaf-bearing branch tripinnately divided, the pinnae arranged in one plane. Leaves in 4 ranks, resembling those of *Libocedrus macrolepis* in general appear-

ance. Cones similar in shape to those of *Cupressus Lawsoniana*, but larger. Seeds very unequally and laterally 2-winged. Fokien, China. (H. Clinton-Baker.) [Syn. *Cupressus Hodginsii*, Dunn.]

**\*Fraxinus bracteata.** (*Veitch, N. H. P.* 1911, 4.) Oleaceae. H. A deciduous tree 40 ft. high, of neat habit, with light elegant pinnate leaves, which are deep glossy green above and bright green beneath. Central China. (J. Veitch & Sons.)

**\*Fraxinus Dippeliana.** (*Späth Cat.* 1911-12, n. 148, 97.) H. A form of *F. Bungeana* with small leaves. (L. Späth, Berlin.)

**\*Fraxinus Spaethiana.** (*Späth Cat.* 1911-12, n. 148, 98.) H. A new name for the plant long known in cultivation as *F. Sieboldiana*. It is easily recognised by the thick dark red-brown pulvinus at the base of the petiole. See *Engler, Bot. Jahrb.* xl. 215. Country not known; possibly Japan.

**Freesia hybrida Ragionieri.** (*G. C.* 1911, xlix, 233.) Iridaceae. G. Obtained by crossing *F. refracta* and *F. Leichtlinii*, and their hybrids and varieties, with *F. Armstrongii*. (Bruggemann, Villefranche-sur-Mer, France.)

**Freesia Maidenii.** (*G. C.* 1911, l, 62.) G. A garden hybrid between *F. refracta alba* and *F. Armstrongii*. (G. W. Kershaw, Wahoonga, New South Wales.)

**\*Fritillaria conica.** (*Jard.* 1911, 365.) Liliaceae. H. Leaves in a rosette. Flowers campanulate, pale yellow outside, bright yellow inside. Greece. (M. Herb, Naples.)

**\*Fritillaria Zahni.** (*Jard.* 1911, 365.) H. Flowers campanulate, rather large, brown tessellated with green inside, streaked with yellow outside. Greece. (M. Herb, Naples.)

**Ginkgo biloba var. latifolia.** (*R. H.* 1911, 83, f. 24.) Coniferae. H. A variety distinguished by its large broad leaves, only slightly lobed in the middle, somewhat undulate on the margin. (Park near Metz, Germany.)

**Ginkgo biloba var. longifolia.** (*R. H.* 1911, 82, f. 23.) H. Leaves large and more elongated than those of the typical form, more deeply lobed in the middle, and more or less lacinate. (Paris B.G.)

**Gongora Tracyana.** (*G. C.* 1911, xlix, 316; *O. R.* 1911, 150, 285; *K. B.* 1912, 133.) Orchidaceae. S. A new species differing from *G. Scaphephorus* in having flowers only half the size and aristate lateral lobes to the lip. Sepals and petals greenish-yellow, barred and blotched with brown, the former about  $\frac{1}{2}$  in. long, the latter very small. Lip ivory white, with a few brown lines on the basal half, about  $\frac{1}{8}$  in. long. Peru. (Tracy's Nursery; J. S. Bergheim.)

**Grevillea robusta compacta.** (*G. C.* 1911, xlix, 376, f. 171; *G. M.* 1911, 452, f.) Proteaceae. G. Differs from the type by its denser growth and more handsome foliage. (R. B. Leech.)

\***Haberlea Ferdinandi - Coburgii.** (*G. C.* 1911, xlix, 338; *G. M.* 1911, 414.) Gesneraceae. H. Very similar to *H. rhodopensis* in habit of growth. Flowers tubular, violet-rose outside, lavender at the mouth, white in the throat. Bulgaria. (G. Reuthe.)

**Helianthus cucumerifolius purpureus.** (*G. C.* 1911, xlix, 201.) Compositae. H. Described as a new race of hybrid sunflowers, with ray-florets varying in colour from light pink to deep purple, straight and flat or twisted and pointed. (M. Herb, Naples.)

**Hibiscus furcatus** var. *microcarpus*. (*B. P.* vii, 103; *Fedde, Repert.* ix, 253.) Malvaceae. S. Differs from the type in its shorter peduncles, smaller yellowish corolla, much shorter calyx, and included capsule. Italian Somaliland. (Palermo B. G.)

**Houlletia Wallisii.** (*G. C.* 1911, 1, 177, f. 84; *G. M.* 1911, 660, f.; *O. R.* 1911, 271.) Orchidaceae. S. Resembles *H. Brocklehurstiana* in habit. Inflorescence short and decumbent. Flowers large, wax-like, pale yellow with purple marks on the inside. Colombia. A re-introduction; it was in cultivation in 1869. See *G. C.* 1869, 611. (Charlesworth & Co.)

**Hydrangea Davidii.** (*M. D. G.* 1911, 245.) Saxifragaceae. H. Shrub, 3-6 ft. high. Leaves long-stalked, oblong, 4-6 in. long, long-acuminate, almost glabrous. Heads of flowers terminal, flat, 6-8 in. across, with blue fertile flowers in the middle, surrounded by white sterile ones  $1\frac{1}{2}$  in. across. Western China. (Arnold Arboretum, Boston, U.S.A.; H. A. Hesse, Weener, Hanover.)

\***Impatiens Herzogii.** (*B. M. t.* 8396.) Geraniaceae. S. Very similar to *I.*

*Hawkeri*, but easily distinguished through being quite glabrous, and in having vermilion-coloured instead of dark red flowers. These are  $1\frac{1}{2}$ -2 $\frac{1}{2}$  in. across. New Guinea. (Glasnevin B. G.; Kew.)

\***Impatiens kewensis.** (*G. C.* 1911, 1, 41.) G. A garden hybrid between *I. platypetala* and *I. Herzogii*. (Kew.)

**Incarvillea lutea.** (*G. C.* 1911, 1, 130, suppl. ill.) Bignoniaceae. H.? Herb 2-4 ft. high. Leaves mostly radical, pinnate, 8-15 in. long, long-petiolate; leaflets broadly lanceolate, crenate. Scapes stout and rigid, with a few leafy bracts. Flowers 6-20, in a loose spike, slightly pendulous on short stout pedicels. Corolla-tube 2-3 in. long, deep yellow; limb 2 in. across, pale yellow. South-west China. (Bees, Ltd.)

**Ipomoea Macalusoi.** (*B. T. O.* 1911, 289.) Convolvulaceae. S. Stem woody, slightly pubescent. Leaves ovate-orbicular, shortly acute and mucronate, deeply cordate at the base; petiole long, somewhat villous. Flowers axillary, in subsessile cymes. Corolla large, campanulate, orange-coloured, margined with red. Italian Somaliland. (Palermo B. G.)

\***Iris chrysographes.** (*G. C.* 1911, xlix, 362.) Iridaceae. H. A new species belonging to the same group as *I. sibirica*. Rhizome slender. Stem 15-18 in. long, simple, with 1 or 2 reduced leaves. Leaves linear, 15-18 in. long,  $\frac{1}{2}$  in. broad. Spathes 1-2 flowered; valves green, 2-3 in. long. Flowers very rich dark red-purple with golden lines, very velvety; outer segments very large, 3 in. long, with an obovate blade; inner narrowly oblanceolate. Western China. (Miss Willmott; W. R. Dykes.)

\***Iris sulphurea.** (*G. C.* 1911, 1, 352.) H. This differs from *I. flavescens*, to which it has been referred, in habit, and its spathes instead of being wholly scarious are entirely green, inflated, and of a curious membranous texture. Leaves bright yellowish-green, with a glaucous bloom, the new ones very obtuse and with a conspicuous white edge. Stem rather more than 18 in. high. Flowers sulphur-yellow, the bases of the segments veined with greenish-brown and the beard bright orange-yellow. Caucasus. (W. R. Dykes.)

**Iris tingitana gigantea.** (*R. H.* 1911, 166.) H. H. A robust variety with very large flowers, the outer segments suffused and veined with



pale blue, and the inner deep violet-blue; claws bright yellow. (Rivoire & Son, Lyons.)

**Iris Vartani alba.** (*G. C.* 1911, 1. 448.) *H.* Flowers pure white except for the pale greenish-yellow central ridge of the claw of the falls and a few faint veins of the same colour. (W. R. Dykes.)

**Juniperus Pinchoti.** (*J. of H.* 1911, lxii. 289.) *Coniferae.* *H.* Compact in habit, growing to 30 ft. high, the foliage in one form being green and in another glaucous. Berries pink. North-western Texas. (J. W. Riggs, Waterloo, Kansas, U.S.A.)

\***Kennedya Beckxiana.** (*B. M.* t. 8358.) *Leguminosae.* *G.* A handsome species differing from *K. rubicunda* in always having 2-flowered peduncles and a glabrous pistil. A climbing perennial herb. Leaves pinnately 3-foliolate; leaflets obovate to elliptic, up to 3 in. long and 2 in. broad. Flowers about 1½ in. long, red except for a greenish-yellow dark-margined blotch at the base of the standard. South-western Australia. (Kew.)

**Laelia Canari.** (*R. H.* 1911, 483.) *Orchidaceae.* *G.* A garden hybrid between *L. Digbyana* and *L. xanthina*. (C. Béranek, Paris.)

**Laelia Chatini.** (*O. R.* 1911, 29.) *G.* A garden hybrid between *L. Jongheana* and *L. harpophylla*. (J. Ginot, St. Etienne, France.)

**Laelia tenejalis.** (*G. C.* 1911, 1. 247.) *G.* A garden hybrid between *L. grandis tenebrosa* and *L. majalis*. (Dr. Hodgkinson.)

**Laelio-cattleya callistor.** (*O. W.* ii. 14.) *Orchidaceae.* *G.* A garden hybrid between *Cattleya bicolor* and *L.-c. callistoglossa*. (F. Sander & Sons.)

**Laelio-cattleya Cowanii.** (*G. C.* 1911, xlix. 376; *O. W.* i. 223.) *G.* A garden hybrid between *Laelia cinnabrosa* and *Cattleya Mossiae*. (Liverpool Orchid Nursery Co.)

**Laelio-cattleya Davidsoniae.** (*G. C.* 1911, 1. 282.) *G.* A garden hybrid between *L.-c. bella* and *Cattleya labiata*. (E. H. Davidson.)

**Laelio-cattleya Danganii.** (*G. C.* 1911, 1. 381; *G. M.* 1911, 900.) *G.*

A garden hybrid between *L.-c. Cappei* and *Cattleya Dowiana*. (F. Wellesley.)

**Laelio - cattleya Desgrangeana.** (*O. R.* 1911, 45.) *G.* A garden hybrid between *Cattleya labiata* and *Laelia lobata*. (J. Ginot, St. Etienne, France.)

**Laelio-cattleya Duchesniae.** (*T. H.* 1911, 506.) *G.* A garden hybrid between *Laelia callistoglossa* and *Cattleya speciosissima*. (F. Lambeau, Brussels.)

**Laelio-cattleya Farrantiae.** (*G. C.* 1911, xlix. 376.) *G.* A garden hybrid between *Laelia purpurata* and *L.-c. Pallas*. (F. Wellesley.)

**Laelio-cattleya fascinator-Mossiae.** (*G. C.* 1911, xlix. 376, 422, f. 191; *O. W.* i. 223.) *G.* A garden hybrid. (Sir Trevor Lawrence.)

**Laelio-cattleya Floryi.** (*G. C.* 1911, 1. 462.) *G.* A garden hybrid between *L.-c. "Violetta"* and *Cattleya Trianae*. (Tracy's Nursery.)

**Laelio-cattleya Harrisoniae.** (*O. R.* 1911, 348.) *G.* A garden hybrid between *Laelia xanthina* and *Cattleya Loddigesii*. (C. Alwyn Harrison.)

**Laelio-cattleya Herscentiae.** (*G. C.* 1911, 1. 312.) *G.* A garden hybrid between *Laelia Boothiana* and *Cattleya aurea*. (Stuart Low & Co.)

**Laelio-cattleya Lambeauae.** (*T. H.* 1911, 457.) *G.* A garden hybrid between *Laelia praestans* and *Cattleya Hardyana*. (F. Lambeau, Brussels.)

**Laelio - cattleya Morningtoniae.** (*G. C.* 1911, xlix. 333; *G. M.* 1911, 411, 413, f.) *G.* A garden hybrid between *L.-c. Pallas* and *L.-c. fascinator*. (F. Wellesley.)

**Laelio - cattleya Muelleri.** (*O. R.* 1911, 255.) *G.* A garden hybrid between *L. purpurata* and *L.-c. Canhamiana*. (C. F. Karthaus, Potsdam, Berlin.)

**Laelio - cattleya Rothschildiana.** (*J. H. F.* 1911, 258.) *G.* A garden hybrid between *L.-c. Martinii* and *Cattleya Mossiae*. (C. Schwarz, Ferrières-en-Brie, France.)

**Laelio - cattleya Steppedediana.** (*O. W.* ii. 63.) *G.* A garden hybrid between *Cattleya Luddemanniana* and *L.-c. Andromeda*. (Cte. J. de Hempinne, St. Denis, Ghent.)

**Laelio-cattleya teignmouthiensis.** (*G. C.* 1911, xlix, 18.) *G.* A garden hybrid between *L.-c. amanda* and *Cattleya labiata*. (*E. F. Clark.*)

**Laelio-cattleya Vilmoriniana.** See *Brasso-cattleya Vilmoriniana*.

\***Landolphia Petersiana.** (*B. M.* t. 8389.) Apocynaceae. *S.* A climbing shrub. Leaves elliptic or oblong-elliptic, 3-4½ in. long, 1½-2 in. broad, leathery, finally glabrous. Panicle pedunculate, bearing numerous sessile flowers in clusters at the tips of its branchlets. Corolla white, fragrant; tube slender, ¼-½ in. long; limb 5-lobed; lobes oblong or linear-oblong, ½-¾ in. long. East Africa. (*Kew.*)

**Leontotis dysophylla.** (*B. M.* t. 8404.) Labiatae. Differs from *L. Leonurus* in having broader leaves, longer calyx-teeth, and orange-yellow rather than scarlet flowers. South Africa. (*Cambridge B. G.*)

**Ligustrum ovalifolium multiflorum.** (*G. C.* 1911, l. 237, f. 109.) Oleaceae. *H.* A very free-flowering variety. (*E. A. Bowles.*)

\***Liquidambar formosana.** (*Veitch, N. H. P.* 1911, 9.) Hamamelidaceae. *H.* A deciduous tree with handsome deep green 3-lobed leaves. It is the Feng Tree of the Chinese, who use its wood for making tea chests. China; Japan; Formosa. (*J. Veitch & Sons.*)

**Livistona Dournowiana.** (*R. H. B.* 1911, 128.) Palmae. *S.* A new palm with leaves resembling those of *Latania borbonica*. Country not stated. (*J. De Cock.*)

\***Lonicera Henryi.** (*B. M.* t. 8375.) Caprifoliaceae. *H.* Closely allied to *L. Giraldui*, but easily distinguished by the leaves being quite glabrous except on the margin and midrib. Climbing shrub. Leaves oblong-lanceolate, 1½-2½ in. long, ½-¾ in. broad. Peduncles 2-flowered, ¼-½ in. long, in the axils of the uppermost leaves. Corolla 2-lipped, cream-yellow, pink and orange-yellow; tube about ½ in. long, glabrous outside; upper lip 4-lobed; lower lip undivided, oblong, ⅔ in. long. Central and Western China. (*Right Hon. L. Harcourt, &c.*)

\***Lonicera nitida.** (*G. C.* 1911, l. 102, 312; *G. M.* 1912, 819.) *H.* Evergreen shrub, 3-6 ft. high, with a very neat habit; branches erect, densely leafy. Leaves leathery, ovate, ½-¾ in. long, obtuse, subcordate at the base, shining and dark green above,

very pale beneath. Flowers in pairs, small, cream-white, fragrant. Fruits globose, blue-purple, the size of a large pea. West China. (*Arnold Arboretum, Boston, Mass., U.S.A.; J. Veitch & Sons.*) [*Syn. L. pileata, Oliv. var. yunnanensis, Rehder.*]

**Mammillaria Sartorii.** (*M. K.* 1911, 50, f.) Cactaceae. *G.* Globose or cylindric-globose, very proliferous, woolly at the summit, 3½-5 in. across. Tubercles about ½ in. long, pyramidal, irregularly many-angled. Areoles circular, densely white-woolly. Spines 4-6, 2½-4 lin. long. Flowers about ¾ in. long, yellowish-carmine. Two forms are recognised: *f. brevispina*, with the spines only ½-1 lin. long, and *f. longispina*, with central spines 4 lin. long. Mexico. (*Darmstadt B. G.; R. Graessner, Perleberg, Germany.*)

**Mammillaria Seideliana.** (*M. K.* 1911, 154, f.) *G.* Stem globose or shortly cylindric, about 3 in. high, at first simple, afterwards proliferous. Tubercles cylindric to conical, about 5 lin. long. Spines 2½-7½ lin. long, white, yellow, or brown; radial about 20; central 3, longer than the radial, 1 hooked. Flowers yellowish, up to ¾ in. long, ⅔ in. across. Mexico. (*R. Seidel, Magdeburg.*)

**Maxillaria abbreviata.** (*Orchis*, 1911, 105, f. 13.) Orchidaceae. *S.* A very free-flowering species. Leaf-blade oblong, 10 in. long, 3½ in. broad, darker green above, pale on the margin, and with a pale transparent midrib; petiole 7 in. long. Flowers 3 in. long, 3¾ in. broad, copper-coloured, somewhat pale on the lip and column. Country not stated. (*Heidelberg B. G.*)

**Meconopsis integrifolia × grandis.** (*G. C.* 1911, l. 22, f. 14.) Papaveraceae. *H.* A garden hybrid. (*R. H. Beamish.*)

**Melanthus intermedius.** (*G. C.* 1911, l. 41.) Sapindaceae. *G.* A garden hybrid between *M. comosus* and *M. major*. (*La Mortola, Ventimiglia, Italy.*)

\***Meliosma cuneifolia.** (*B. M.* t. 8357.) Sabiaceae. *H.* Tree or shrub. Leaves narrowly obovate-cuneate, 2½-7 in. long, ½-3 in. broad, serrate, glabrous except on the nerves and in the nerve angles beneath. Panicle pyramidal, many-flowered, about 8 in. across. Flowers greenish-yellow, ½ in. across. Sepals 5, ovate or rounded ovate. Petals 5, very unequal, the 3 outer obicular, the 2 inner smaller and deeply 2-lobed. Stamens 5. Fruit



- subglobose, entire or 2-lobed, 2-3 lin. across. Western China. (J. Veitch & Sons.)
- \***Mesembryanthemum dealbatum.** (*K. B.* 1911, 357.) Ficoideae. *G.* Differs from *M. obtusum* in having equal thicker and whitish leaves, shortly pedunculate flowers, and a 5-lobed calyx. Petals in 2 or 3 rows, linear,  $\frac{1}{2}$ – $\frac{3}{4}$  in. long, pale rose. Little Namaqualand. (Kew.)
- \***Mesembryanthemum oculatum.** (*K. B.* 1911, 313.) *G.* A new species allied to *M. viridiflorum*, differing in the much shorter branches, more crowded leaves, and in having white flowers with a red centre. Leaves  $\frac{1}{2}$ – $1\frac{1}{4}$  in. long, 2–3 lin. broad at the base, narrowed to an obtuse apex. Petals in many loose rows, the outer 5 lin. long, linear. South Africa. (Kew.)
- \***Mesembryanthemum rubrolineatum.** (*K. B.* 1911, 82.) *G.* A new species near *M. aloides*, but easily distinguished by its larger leaves and flowers, and by the yellow petals having in the middle on both sides a red line. Leaves crowded in a rosette, trigonous-oblong, 1–2 in. long. Flowers solitary or in pairs,  $1\frac{1}{2}$  in. across. Petals numerous, in 2 rows. South Africa. (Kew.)
- Miltonia Berti.** (*R. H.* 1911, 264; *J. H. F.* 1911, 220.) Orchidaceae. *S.* A garden hybrid between *M. Bleuana* and *M. vexillaria*. (E. Bert, Bois Colombes, Seine, France.)
- Miltonia candida superba.** (*G. C.* 1911, 1, 282.) *S.* Flowers very fine. Lip white, with a purple blotch. (Mansell & Hatcher.)
- Miltonia Warszewiczii picta.** (*G. C.* 1911, xlix, 78; *G. M.* 1911, 106.) *S.* A fine form with well-rounded flowers. Sepals and petals light brown tipped with yellow. Lip broadly ovate, dark rose, with a pure white front. (Charlesworth & Co.)
- Montanoa Wereklei.** (*G. C.* 1911, 1, 122.) Compositae. *G.* A new species allied to *M. grandiflora*. Shrub attaining a height of about 20 ft., with white-tomentose branches. Leaves 5–7 lobed or unequally pinnate or trifoliate, 8–10 in. long and broad, more or less cordate at the base, softly pubescent; leaflets not more than  $1\frac{1}{2}$  in. long, usually much smaller; petioles 6–7 in. long. Flower-heads white (?), about 2 in. across, arranged in broad corymbs. Costa Rica. (La Mortola, Ventimiglia, Italy.)
- Narcissus cyclamineus**  $\times$  **minimus.** (*G. C.* 1911, xlix, 153.) Amaryllidaceae. *H.* A garden hybrid. (E. A. Bowles.)
- Nephrolepis Batchelori.** (*G. C.* 1911, xlix, 255.) Filices. *S.* "A new sport." No description. (E. J. Batchelor & Sons.)
- Nephrolepis Marshallii compacta.** (*G. C.* 1911, xlix, 236; *G. M.* 1911, 301.) *S.* A sport from *N. exaltata* var. *Marshallii*, with very finely divided fronds which resemble a layer of moss. (H. B. May & Sons.)
- Nerine Veitchii.** (*G. C.* 1911, 1, 244; *Gard.* 1911, 486, f.) Amaryllidaceae. *G.* Supposed to be a new species resembling a pale form of *N. Bowdenii*. Flowers  $2\frac{1}{2}$  in. across, with recurved segments. South Africa. (R. Veitch & Son.) [= *N. Bowdenii pallida*.]
- Nervilia Fuerstenbergiana.** (*Fedde.* Repert. ix, 330.) Orchidaceae. *S.* Plant up to 4 in. high, with globose 1-leaved tubers. Leaves petiolate, reniform, obscurely 7-angled, about  $1\frac{1}{2}$  long and  $2\frac{1}{2}$  in. broad. Scape erect,  $1\frac{1}{2}$ –2 in. long, 1-flowered. Flower about  $\frac{2}{3}$  in. long. Sepals and petals greenish-grey, with fine reddish lines. Lip white, with red dots and blotches. Cameroons. (Baron M. v. Fürstenberg, Hugenpoet, Mintard, Germany.)
- Nymphaea Listeri.** (*G. C.* 1911, 1, 244; *G. M.* 1911, 777, f.) Nymphaeaceae. *S.* Allied to *N. zanzibariensis*. Flowers deep bright blue with darker blue stamens. A tropical species, but country not stated. (Earl of Warwick.)
- Nymphaea Maynardii.** (*G. C.* 1911, 1, 244.) *S.*? "A magnificent and fragrant flower, fully 9 inches across, and of a lovely pale shade of heliotrope." (Earl of Warwick.)
- Nymphaea pennsylvanica.** (*G. C.* 1911, 1, 244.) *S.* "A pale blue variety." (Earl of Warwick.) [*N. pennsylvanica*, Conard, is a garden hybrid between *N. caerulea* and *N. zanzibariensis*, raised in the Botanic Garden of the University of Pennsylvania, where it first flowered in 1901.]
- Nymphaea stellata rosea.** (*G. C.* 1911, 1, 244.) *S.* Flowers clear pink, with a golden centre. (L. de Rothschild.)
- Odontioda Boltonii.** (*G. C.* 1911, xlix, 206; *O. R.* 1911, 154, f. 19.) Orchidaceae. *G.* A garden hybrid

between *O. Vuylstekeae* and *Cochlidia Noetzliana*. (W. Bolton.)

**Odontioda Floryi.** (*G. C.* 1911, xlix. 141.) *G.* A garden hybrid between *Cochlidia Noetzliana* and *Odontoglossum Andersonianum*. (H. S. Goodson.)

**Odontioda grata.** (*O. W.* i. 83; *O. R.* 1911, 310.) *G.* A garden hybrid between *Cochlidia Noetzliana* and *Odontoglossum tripudians*. (F. Sander & Sons.)

**Odontioda Jessopiae.** (*G. C.* 1911, xlix. 255.) *G.* A garden hybrid between *Odontoglossum* "Queen Alexandra" and *Cochlidia Noetzliana*. (Mansell & Hatcher.)

**Odontioda rosefieldiense.** (*G. C.* 1911, xlix. 301, 308, f. 140; *G. M.* 1911, 379.) *G.* A garden hybrid between *Cochlidia Noetzliana* and *Odontoglossum triumphans*. (de B. Crawshaw.)

**Odontocidium Fowlerianum.** (*G. C.* 1911, l. 343; *G. M.* 1911, 878 f.; *O. R.* 1911, 353.) Orchidaceae. *G.* A garden hybrid between *Odontoglossum cirrhosum* and *Oncidium Forbesii*. (J. G. Fowler.)

**Odontoglossum ashlandense.** (*O. R.* 1911, 57.) Orchidaceae. *G.* A garden hybrid between *O. Edwardii* and *O. Ossulstonii*. (R. Ashworth.)

**Odontoglossum Ashworthianum.** (*G. C.* 1911, xlix. 142.) *G.* A garden hybrid between *O. Uroskinneri* and *O. cirrhosum*. (R. Ashworth) [The name is in use for a supposed natural hybrid between *O. Cercantesii* and *O. cordatum*.]

**Odontoglossum bellum.** (*G. C.* 1911, xlix. 300.) *G.* A garden hybrid between *O. crispum* and *O. bellatulum*. (J. S. Moss.)

**Odontoglossum crispum Canoniae.** (*G. C.* 1911, xlix. 14.) *G.* Flowers large, pure white, bearing large evenly - distributed claret - coloured blotches. (J. & A. A. McBean.)

**Odontoglossum Godmanii.** (*G. C.* 1911, xlix. 46; *G. M.* 1911, 75.) *G.* A garden hybrid between *O. Edwardii* and *O. Rolfeae*. (F. Du Cane Godman.)

**Odontoglossum Halseyanum.** (*G. C.* 1911, xlix. 46; *Gard.* 1911, 65, f.) *G.* A garden hybrid of unrecorded parentage. It resembles a finely blotched form of *O. crispum*. (J. Gurney Fowler.)

**Odontoglossum Harwoodii.** (*G. C.* 1911, xlix. 78, 98, f. 51; *O. R.* 1911, 81, f.) *G.* A garden hybrid between *O. Wiganianum* and *O. maculatum auriferum*. (Charlesworth & Co.)

**Odontoglossum Manselliae.** (*O. R.* 1911, 152.) *G.* A garden hybrid between *O. Vuylstekeae* and *O. Harryanum*. (Mansell & Hatcher.)

**Odontoglossum Mariae.** (*G. C.* 1911, xlix. 78; *G. M.* 1911, 106.) *G.* A garden hybrid between *O. Uroskinneri* and *O. Charlesworthii*. (Charlesworth & Co.)

**Odontoglossum ramos-Edwardii.** (*G. C.* 1911, xlix. 269.) *G.* A garden hybrid between *O. ramosissimum* and *O. Edwardii*. (Sir Trevor Lawrence.)

**\*Odontoglossum rosefieldiense.** (*G. C.* 1911, xlix. 46, 163, f. 73; *O. W.* i. 122, f.) *G.* A garden hybrid between *O. Harryanum* and *O. Lambaeanum*. (de B. Crawshaw.)

**Odontoglossum Rossianae** var. *flavida.* (*G. C.* 1911, xlix. 269.) *G.* Flowers cream-yellow, spotted with chocolate-red. (H. Graire, Amiens.)

**Odontoglossum swietenicolor.** (*G. C.* 1911, xlix. 206, 210, f. 93; *G. M.* 1911, 260.) *G.* A garden hybrid between *O. Wilkeanum* and *O. Vuylstekei*. (Sir Trevor Lawrence.)

**Odontoglossum Wilsoni.** (*O. R.* 1911, 28.) *G.* A garden hybrid between *O. crispum*-*Harryanum* and *O. Vuylstekei*. (W. Thompson.)

**\*Oenothera ovata.** (*G. C.* 1911, xlix. 418, f. 190.) Onagraceae. *H.* Closely allied to *O. taraxacifolia*, but the leaves are almost entire, with sinuate margins, sometimes irregularly few-lobed, the habit of the plant is more compact, and the rich orange-yellow flowers are smaller (1-1½ in. across). California. (M. Prichard; Kew.)

**Olearia angustifolia.** (*G. C.* 1911, xlix. 52.) Compositae. *H. H.* A stout shrub or small tree, white-tomentose on the branches, underside of leaves, and peduncles. Leaves sessile, narrow, 3-5 in. long, pointed, stiff, spiny on the margin. Flower-heads 1½-2 in. across; ray-florets white; disc florets purple. New Zealand. (Glasnevin B. G.)

**\*Olearia avicenniaefolia.** (*G. C.* 1911, xlix. 52.) *H. H.* A shrub or small tree. Leaves elliptic-lanceolate or oblong-lanceolate, 2-4 in. long



quite entire, green above, clothed with a fawn-coloured tomentum beneath; petiole rather long. Flower-heads small, white, in large erect clusters. New Zealand. (Glasnevin B. G.)

\**Olearia lacunosa*. (*G. C.* 1911, xlix, 52.) H. H. A stout shrub or small tree. Leaves linear, 6-7 in. long,  $\frac{3}{4}$  in. broad, standing out at right angles to the branches, green above, with a yellow midrib, downy beneath, with strong lateral veins. Flower-heads small, numerous, in panicles forming a corymbose mass. New Zealand. (Glasnevin B. G.)

\**Olearia Lyallii*. (*G. C.* 1911, xlix, 53.) H. H. A robust shrub or small tree. Leaves elliptic-ovate or orbicular-ovate, 4-6 in. long, clothed when young with white woolly hairs, glabrous when old. Flower-heads discoid,  $1\frac{1}{4}$ - $1\frac{1}{2}$  in. across, dark brown, in stout terminal racemes 4-8 in. long. New Zealand. (Capt. Dorrien-Smith; Glasnevin B. G.)

\**Olearia odorata*. (*G. C.* 1911, xlix, 53.) H. or H. H. Similar to *O. virgata*, but it has cylindrical branches and larger and broader leaves. New Zealand. (Sir J. Ross.)

\**Olearia oleifolia*. (*G. C.* 1911, xlix, 53.) H. H. Similar to *O. Haastii* in habit, flower-heads, and time of flowering. Leaves narrow, 2-3 in. long. New Zealand. (Glasnevin B. G.)

\**Olearia virgata*. (*G. C.* 1911, xlix, 53.) H. H. An erect much-branched shrub. Leaves linear,  $\frac{1}{2}$ - $\frac{1}{2}$  in. long, opposite or in opposite fascicles. Flower-heads small, dull-coloured. New Zealand. (Glasnevin B. G.)

*Oncidium concolor* var. *rhodoptera*. (*O. R.* 1911, 158.) Orchidaceae. G. Differs from the type in having the upper part of the column wings and the margin of the stigma red. (Tracy's Nursery.)

*Oncidium Janssenii*. (*O. R.* 1911, 310, 316.) G. A garden hybrid between *O. tigrinum* and *O. Forbesii*. (Charlesworth & Co.)

\**Oncidium Mulleri*. (*G. C.* 1911, xlix, 333; *G. M.* 1911, 413.) G. Allied to *O. corynephorum* or possibly a form of it. Flowers  $1\frac{1}{2}$  in. across, in long twining spikes. Sepals and petals white, tinged with rose. Lip ovate, rose-purple, with a cream-yellow crest. Peru. (F. Sander & Sons.)

\**Oncoba Routledgei*. (*G. C.* 1911, xlix, 322, ff. 145-146 & suppl. ill.; *K. B.* 1911, 262.) Bixaceae. S. Shrub, up to 20 ft. high, bearing strong spines 1 in. long or less. Leaves alternate, shortly stalked, elliptic-oblong or oblong,  $2\frac{1}{2}$ - $4\frac{1}{2}$  in. long,  $1\frac{1}{2}$ - $2\frac{1}{2}$  in. broad, coarsely crenate-serrate, almost glabrous. Flowers borne singly or two together on the old wood, white, fragrant, 2- $2\frac{1}{2}$  in. across. Petals about 8. Stamens very numerous. Uganda. (C. E. Shea.) [Syn. *O. spinosa* var. *Routledgei*; *G. C.* 1911, xlix, 236, 285; *G. M.* 1911, 277, 301, f. (as *O. speciosa* var. *Routledgei*).]

*Opuntia Deamii*. (*M. K.* 1911, 4.) Cactaceae. G. About 3 ft. high. Branches few, ascending; joints erect or spreading, obovate to oblanceolate, 10-12 in. long. Spines 2-6,  $1\frac{1}{2}$ - $2\frac{1}{2}$  in. long, stout, white or dull yellow. Flowers 3 in. long, salmon-rose to terra-cotta-coloured. See *Contr. U. S. Nat. Herb.* xiii, 309, t. 55. Guatemala. (Haage & Schmidt, Erfurt.)

*Osbeckia Hildebrandii*. (*K. B.* 1911, 269.) Melastomaceae. S. Leaves ovate or oblong, 4-8 in. long,  $1\frac{1}{2}$ -3 in. broad, hairy above and on the principal veins beneath, 7-nerved; petiole 5-8 lin. long. Flowers in a densely hairy-tomentose raceme which is finally elongated. Petals rose-coloured, obovate-orbicular,  $\frac{3}{4}$ -1 in. long. Burma. (Kew.)

*Osmanthus armatus*. (*G. C.* 1911, l, 113, f. 54.) Oleaceae. H. An evergreen shrub or small tree. Leaves oblong-lanceolate, 3-6 in. long or more,  $\frac{3}{4}$ - $1\frac{1}{2}$  in. broad, coarsely toothed; teeth triangular, with very slender spiny tips; upper leaves smaller and less prickly; petiole  $\frac{1}{2}$ - $\frac{3}{4}$  in. long. Flowers cream-white, fragrant,  $\frac{1}{4}$  in. across, in axillary fascicles produced in autumn. Central China. (J. Veitch & Sons.)

*Paphiopedilum Sladdenii*. (*O. R.* 1911, 41, f. 4.) Orchidaceae. S. A garden hybrid between *P. glaucophyllum* and *P. bellatulum*. (C. Sladden, Liège.) [Syn. *Cypripedium Sladdenii*; T. H. 1911, 170.]

*Paulownia Silvestrii*. (*M. D. G.* 1911, 242.) Scrophulariaceae. H. A small tree, with densely brown-woolly foliage, and with all parts of the inflorescence furnished with dark bronze-coloured hairs. Leaves narrower than is usual in the genus, deeply cordate, irregularly lobed, coarsely and bluntly toothed. Flowers sky-blue. Central China. (C. Sprenger, Naples.)

\**Pentstemon arizonicus*. (*M. G. Z.* 1911, 301, f.) Scrophulariaceae. H. A densely tufted plant, with glandular-hairy stems about 10 in. high. Radical leaves long-petiolate, elliptic, finely crenate; cauline leaves sessile. Flowers glandular-hairy, pale reddish-violet, paler on the underside, bearded and white-striped on the lower lip inside. Arizona. (Darmstadt B. G.)

*Philadelphus brachybotrys* var. *purpurascens*. (*M. D. G.* 1911, 245.) Saxifragaceae. H. Distinguished by its purple pedicels and calyx. Western China. (Arnold Arboretum, Boston, U.S.A.; H. A. Hesse, Weener, Hanover.)

*Philadelphus Schrenckii* var. *Jackii*. (*Fedde, Repert.* x. 127.) H. Distinguished from the type by the leaves on the underside and the ovary at the base being more hairy. Corea; Northern China. (Arnold Arboretum, Boston, U.S.A.)

\**Phyllodoce amabilis*. (*B. M. t.* 8405.) Ericaceae. H. A new species allied to *P. enpetriiformis* and *P. intermedia*, but differing from both in the campanulate, not urn-shaped, almost wholly white corolla, and in having the filaments more than twice as long as the small anthers. North America. (Kew.)

*Picea alba* × *sitkaensis*. (*M. D. G.* 1911, 323.) Coniferae. H. (Herr von Grass, Klanin, Germany.)

*Picea orientalis atrovirens*. (*M. D. G.* 1911, 172.) H. Distinguished by its dark green leaves. (H. den Ouden & Son, Boskoop, Holland.)

\**Pinguicula Rosei*. (*G. C.* 1911, xlix. 82, 292, f. 42.) Lentibulariaceae. G. This differs from *P. caudata* in the shape of its leaves and in the colour of its flowers, which are deep violet-purple or almost blue, and are about 1½ in. across. Mexico. (Kew.)

*Pinus Cembra columnaris*. (*T. H.* 1911, 474.) Coniferae. H. A form with erect branches. (H. Hellemann, Moorende, Bremen.)

*Pinus edulis albo-variegata*. (*M. D. G.* 1911, 423.) H. A form in which white leaves are mixed with the green ones. (F. Graf von Schwerin, Wendisch-Wilmersdorf, Germany.)

\**Polianthes Blissii*. (*J. R. H. S.* xxxvi. 605, f. 179.) Amaryllidaceae. G. A garden hybrid between *Bravoa geminiflora* and a garden form of

*Polianthes tuberosa*. (Bliss, Orpington.)

*Polypodium Mandaianum*. (*J. of H.* 1911, lxiii. 299.) Filices. G. A crested form of *P. aureum*. (W. A. Manda, South Orange, N.J., U.S.A.)

*Populus Silvestrii*. (*M. D. G.* 1911, 243.) Salicaceae. H. Nearly allied to *P. lasiocarpa*. Leaves long-stalked, broadly ovate, long-acuminate, serrate. Central China. (C. Sprenger, Naples.)

\**Potentilla Veitchii*. (*G. C.* 1911, 1. 102; *Veitch, N. H. P.* 1911, 4, f.) Rosaceae. H. A new species with a general resemblance to *P. fruticosa*, but easily distinguished by its pure white flowers. An evergreen shrub, 3-5 ft. high. Leaves pinnate, ¾-1 in. long, including petiole; leaflets 3-5, sessile, oval, ¾ in. long, silky hairy on both sides. Flowers usually solitary, ¾-1½ in. across. Central China. (J. Veitch & Sons.)

\**Primula Beesiana*. (*G. C.* 1911, 1. 242, f. 110 & suppl. ill.) Primulaceae. H. Very similar to *P. Bulleyana*, but differing in having deep rose-carmine flowers with a bright orange eye. Leaves ovate-lanceolate, 5-9 in. long, 3-6 in. broad, irregularly toothed; midrib dull red. Scape stout, 2-3 ft. high, densely covered on the upper part with a white meal. Flowers in 5-8 superposed whorls, 12-15 in each whorl, slightly fragrant. Calyx campanulate, 2½-5 lin. long. Corolla-limb about ¾ in. across. South-west. China. (Bees, Ltd.)

\**Primula Gagnepainii*. (*G. C.* 1911, 1. 102, f. 47.) H.? Similar to *P. Veitchii* and *P. lichiangensis*, but it has more orbicular leaves, thinner in texture, with 7 coarsely toothed lobes, the primary lobes being again lobed. Leaf-blade about 3 in. across; petiole about 3 in. long, hairy. Scape 6 in. long. Flowers in an umbel, violet-purple. Calyx gradually tapering to the base or sometimes bulb-like. West China. (Miss Willmott.)

\**Primula Lindsayi*. (*G. M.* 1911, 683.) H. A garden hybrid of which the parentage is not recorded. It has deep crimson flowers with a purplish-yellow eye. (R. Lindsay.)

*Primula Maximowiczii*. (*B. M. t.* 8363.) H. Nearest allied to *P. tangutica*, but distinguishable by its shorter calyx-lobes and red corolla with shorter lobes. Leaves all radical, narrowly elliptic or oblong-elliptic, 1½-6 in. long, ¾-2 in. broad, toothed. Scape stout, 8-12 in. high, bearing 1



whorl or several whorls of flowers. Corolla-tube  $\frac{1}{2}$ – $\frac{2}{3}$  in. long; limb  $\frac{2}{3}$  in. across, with oblong reflexed lobes. Northern China. (J. Veitch & Sons.)

**Primula Watsoni.** (*N. B. G. Edinb. v. 63, t. 61.*) *H.* A new species belonging to the same group as *P. bellidifolia*. Leaves sessile, in a rosette, oblanceolate, 3–6 in. long, obtuse, long-attenuated at the base, lobulate-crenate except at the base. Scape straight, 4–12 in. high, farinose at the apex. Flowers sessile,  $\frac{1}{2}$ – $\frac{1}{2}$  in. long, in a globose head or ovate farinose spike. Corolla dark purple; tube cylindric,  $3\frac{1}{2}$ –5 lin. long; limb cupshaped,  $1\frac{1}{2}$ –2 lin. across. Western China. (Edinburgh B.G.)

**\*Primula Winteri.** (*G. C. 1911, xlix. 130, f. 63; Gard. 1911, 129, fig.*) *H.* A variety of *P. petiolaris*, possibly var. *pulverulenta*. It has the habit of the common Primrose, with obovate-spathulate leaves 4 in. long, 2 in. broad, irregularly toothed, covered with a whitish meal. Flowers 20 or more together in a crowded umbel. Scape short. Corolla pale purple, with a broad white ring surrounding a yellow eye; tube 1 in. long; limb flat,  $1\frac{1}{4}$  in. across; lobes broad, rounded, toothed. Himalaya. (R. Gill & Son.)

**\*Prostanthera pulchella.** (*B. M. t. 8379.*) Labiatae. A distinct new species resembling *P. linearis* in habit. An undershrub about  $1\frac{1}{2}$  ft. high, slender, free-flowering. Leaves subsessile, linear or linear-lanceolate,  $\frac{3}{4}$ – $\frac{3}{4}$  in. long, 1 lin. broad. Flowers in loose rather stiff racemes 2–3 in. long. Corolla subrotate, faintly 2-lipped, lilac, the tube white at the base, dotted with dark purple at the throat; limb 8 lin. across, 5-lobed. Australia. (T. A. Dorrien Smith; Kew.)

**Prunus lusitanica aureo-variegata.** (*M. D. G. 1911, 423.*) Rosaceae. *H.* Leaves with yellow-variegated leaves. (J. Valckenier-Suringar, Wageningen, Holland.)

**\*Prunus microcarpa.** (*B. M. t. 8360; K. B. 1911, 205.*) *H.* Shrub, often dwarf, with twiggy or spreading, rigid or tortuous branches. Leaves broadly ovate to lanceolate-oblong,  $\frac{1}{2}$ – $1\frac{1}{4}$  in. long,  $\frac{1}{4}$ – $\frac{3}{4}$  in. broad, subacute, serrate. Flowers very few, often only 2, on short leafy twigs. Sepals ovate, ciliate. Petals pale rose or white, obovate, about  $2\frac{1}{2}$  lin. long. Fruit ovoid, rather pointed, 3–5 lin. long, red or yellow when ripe. Persia, &c. (Kew.)

**\*Prunus rufa.** (*K. B. 1911, 331.*) *H.* A deciduous tree, 15–20 ft. high;

young branchlets covered with a dense rust-coloured pubescence. Leaves narrowly elliptic or oblong-lanceolate, 2–4 in. long, acuminate, conspicuously glandular-dentate. Flowers pink,  $\frac{1}{2}$  in. across, produced singly or in pairs on the previous year's growth. Nepal and Sikkim. (Kew.)

**\*Prunus serrulata f. Veitchiana.** (*Fedde, Repert. ix 122.*) *H.* This is the plant known in gardens as *P. Pseudocerasus* "James H. Veitch." It differs from typical *P. serrulata* in having very sharply serrate sepals with about 5 to 9 narrow teeth each side, 26–36 purple-rose petals, and markedly mucronate anthers. (J. Veitch & Sons.)

**\*Pseuderanthemum malaccense.** (*B. M. t. 8368; K. B. 1911, 79.*) Acanthaceae. *S.* Shrub, 3–5 ft. high. Leaves lanceolate to elliptic-lanceolate, 3–5 in. long,  $\frac{1}{2}$ –2 in. broad; petiole  $\frac{1}{2}$ – $\frac{3}{4}$  in. long. Inflorescence  $\frac{1}{2}$ –2 in. long, with numerous flowers, many opening together in whorls, finally raceme-like. Corolla salver-shaped; tube narrow, nearly straight, 1– $1\frac{1}{4}$  in. long, pale violet; limb 2-lipped, about  $\frac{3}{4}$  in. across, pale violet or violet-white, with red specks on the mid-lobe of the lower lip. Syn. *Eranthemum malaccense*, C. B. Clarke. Malay Peninsula. (Kew.)

**Pteris Degoesei.** (*T. H. 1910, 9; 1911, 35, f.*) Filices. *G.* A garden hybrid between *P. Drapsi* and *P. argyrea*. (De Goes, Jette-St. Pierre, Belgium.)

**Pteris De Smedti.** (*T. H. 1911, 499, 502, f.*) *G.* Apparently a form of *P. oreiaca* with crested fronds. (De Smedt, Neder - over - Heembeek, Belgium.)

**Pyronia.** (*G. C. 1911, xlix. 221, 285.*) Rosaceae. *H.* [*Pyronia* "John Seden" or *P. Sedenii* is the name given to a hybrid between the Bergamotte Esperen Pear and the Portugal Quince.] (J. Veitch & Sons.)

**Pyrus hupehensis.** (*M. D. G. 1911, 242.*) Rosaceae. *H.* A tree with a straight slender trunk. Branchlets sometimes ending in a thorn. Leaves long-stalked, more or less ovate, rounded or cuneate at the base, long-acuminate, sharply toothed, fresh green above, cream-coloured beneath. Flowers in dense clusters, smaller than in *P. communis*. Central China. (C. Spenger, Naples.)

**Ranunculus palaestinus atrococcineus.** (*Jard. 1911, 383.*) Ranunculaceae. *H.* Flowers large, on long

peduncles, intense scarlet-red. Pales-tine. (M. Herb, Naples.)

\**Rhododendron ambiguum*. (*B. M.* t. 8400.) Ericaceae. H. A new species belonging to the group with scaly-glandular leaves and nearest allied to *R. triflorum*. Leaves persistent, lanceolate,  $1\frac{1}{2}$ -3 in. long including the petiole. Corymbs terminal, usually 5-7-flowered. Corolla broadly campanulate, about 2 in. across, greenish-yellow, dotted with green on the upper side within. Western China. (J. Veitch & Sons.)

\**Rhododendron japonicum* var. *pentamerum*. (*B. M.* t. 8403.) H. This plant has been known under the name of *R. Metternichii*, but it differs from the true *R. Metternichii*, Sieb. & Zucc. in having a 5-lobed corolla, 10 or 11 stamens and a 5-celled ovary. Leaves oblanceolate, about 3 in. long,  $\frac{3}{4}$ -1 $\frac{1}{4}$  in. broad, rusty-tomentose beneath. Flowers in a rather loose rounded head. Corolla rose-coloured, almost campanulate, about  $3\frac{1}{2}$  in. across. Japan. (Kew.)

\**Rhododendron Loderi*. (*G. C.* 1911, 1. 31, suppl. ill.) H. A garden hybrid between *R. Griffithianum* and *R. Fortunei*. (Sir E. G. Loder.)

*Rhododendron rufescens*. (*G. C.* 1911, xlix. 317.) H. A dwarf species, only about 6 in. high, with a habit resembling that of *R. intricatum*. Flowers white, about  $\frac{1}{2}$  in. across. Western China. (J. Veitch & Sons.)

\**Rhododendron sublancheolatum*. (*G. C.* 1911, xlix. 338, 342, f. 157.) G. A species of the *Azalea* section, with a somewhat loose and coarse habit. Leaves ovate-lanceolate, about 2 in. long and  $\frac{3}{4}$  in. broad, firm in texture and lasting 2 seasons. Flowers usually 3 together, 3-4 in. across, rose-red. Probably of Chinese origin; cultivated in Japan. (R. C. Notcutt.)

\**Rhododendron sutchuenense*. (*B. M.* t. 8362; *Veitch, N. H. P.* 1911, 4.) H. Allied to *R. Fortunei*, from which it differs in being altogether glabrous, and in having oblanceolate-oblong leaves. Leaves usually about 6 in. long. Flowers in a dense corymb. Calyx very small. Corolla broadly campanulate, about 3 in. across, rose-coloured, with darker spots on the upper side within. Central China. (J. Veitch & Sons.)

\**Rosa Alberti*. (*G. M.* 1911, 978.) Rosaceae. H. A species with long graceful shoots clothed with glaucous foliage and bearing ornamental club-

shaped coral-red fruits about 1 in long, which last in good condition for a long time. Turkestan. (Kew.)

\**Rubus amabilis*. (*M. D. G.* 1911, 245.) Rosaceae. H. Shrub, up to about 6 ft. high, with slightly prickly branches. Leaves pinnate; leaflets usually 9, ovate,  $1\frac{1}{4}$ -1 $\frac{3}{4}$  in. long, deeply doubly serrate. Flowers solitary, terminal, more than  $1\frac{1}{2}$  in. across. Fruits red, large, well-flavoured. Western China. (Arnold Arboretum, Boston, U.S.A.; H. A. Hesse, Weener, Hanover.)

\**Rubus clemens*. (*M. D. G.* 1911, 245.) H. Shrub with unarmed arching branches 9-20 ft. long. Leaves palmately lobed, 4-5 in. across, pale green and hairy beneath. Flowers small, rose, forming long narrow terminal panicles. Fruits black. Western China. (Arnold Arboretum; H. A. Hesse.)

*Rubus macilentus*. (*M. D. G.* 1911, 245.) H. Shrub,  $2\frac{1}{2}$ -5 ft. high. Branches furnished with strong prickles. Leaves 3-foliolate, with many hooked prickles, glabrous; terminal leaflet ovate-oblong,  $1\frac{1}{4}$ -2 in. long; lateral small. Flowers white, mostly in threes at the ends of short lateral branches. Fruits orange. Himalaya; Western China. (Arnold Arboretum; H. A. Hesse.)

*Saccolabium sarcochiloides*. (*Orchis*, 1911, 61, ff. 24-30.) Orchidaceae. S. Stem short, densely leafy. Leaves subfalcate-ligulate, up to nearly 6 in. long, unequally 2-lobed at the apex. Racemes spreading, short, on short peduncles. Flowers small, lasting only a day, white, with violet-red spots on the base of the sepals and petals and orange-yellow side lobes to the lip. Philippines. (K. W. John, Andernach-on-Rhine.)

\**Salvia globosa*. (*R. H. B.* 1911, 29, f.) Labiatae. H. A biennial. Leaves in a flattened rosette, 16-18 in. long, 10-12 in. broad, deeply cut, clothed with a silvery-white tomentum. Flowering-stem upwards of 3 ft. high, much branched, the branches so arranged as to form a sphere. Flowers large, white. Asia Minor. (Haage & Schmidt, Erfurt.)

*Sambucus canadensis* f. *chlorocarpa*. (*Sargent, T. & S.* ii. 188.) Caprifoliaceae. H. A form with pale green fruits. New Hampshire, U.S.A. (Arnold Arboretum, Boston, U.S.A.)

\**Sanseverinia rorida*. (*B. P.* ix. 208, tt. 5-6; *B. T. O.* 1911, 289.) Haemodorraceae. S. A new species allied to *Sanseveria Schimperi*. Almost



stemless. Leaves 2-ranked, erect-spreading, horn-shaped, terete beneath, deeply channelled above. Scape flexuose, much longer than the leaves. Panicle elongated, with many short spreading-reflexed branches. Flowers small, subfasciculate; segments linear, obtuse, recurved. Italian Somaliland. (Palermo B. G.) [*Sanseveria*.]

**Sarcochilus Ceciliae.** (*O. R.* 1911, 250.) Orchidaceae. *S.* A dwarf tufted plant with linear or lanceolate-linear leaves, 2-3 in. long, and erect spikes, rather longer than the leaves, bearing small pink flowers. Queensland. (Sir J. Colman.)

\***Sarcococca humilis.** (*K. B.* 1911, 329.) Euphorbiaceae. *H.* An evergreen shrub 1-1½ ft. high, of neat tufted habit. Leaves lanceolate or ovate-lanceolate, 1-3 in. long, ¼-½ in. broad, pointed at both ends, glabrous, leathery; petiole ¼-½ in. long. Flowers white, very fragrant, in short axillary racemes. Berry black, roundish, ¼ in. across. Central and Western China. (J. Veitch & Sons.)

**Saussurea Veitchiana.** (*K. B.* 1911, 190; *B. M.* t. 8381; *G. C.* 1911, 1. 85, f. 40.) Compositae. *H.* Herb, 2-3 ft. high, with about 2-5 leafy stems, which are erect, rigid and floccose above. Leaves oblong-linear, the longest about 10 in. long and 2 in. broad, sheathing at the base, toothed, undulate, loosely hairy beneath; upper leaves ovate-lanceolate, gradually smaller, passing into bluish-coloured or purplish bracts. Flower-heads nearly ovoid, over 1 in. long, about ¾ in. broad. Florets deep purplish-black. Central China. (J. Veitch & Sons; Glasnevin B. G.)

\***Saxifraga Aizoon baldensis.** (*G. C.* 1911, xlix. 251.) Saxifragaceae. *H.* A form characterised by having rosettes of leaves only about ½ in. across and young shoots bright crimson in colour. Leaves short, thick, markedly dentate, rounded at the apex. Monte Baldo, North Italy. (R. Farrer.)

**Saxifraga bursiculata.** (*G. C.* 1911, xlix. 141, 158, f. 71; *Gard.* 1911, 154, f.) *H.* A garden hybrid between *S. Burseriana* major and *S. apiculata*. (E. H. Jenkins.)

\***Saxifraga Godseffiana.** (*G. C.* 1911, xlix. 228.) *H.* A garden hybrid between *S. sancta* and *S. Elizabethae*, hitherto known as *Saxifraga* "L. S. Godseff." (Bees, Ltd.)

\***Saxifraga Haagii.** (*G. C.* 1911, xlix. 343.) *H.* A garden hybrid between

*S. sancta* and *S. Ferdinandi-Coburgi*. (F. Sundermann, Lindau, Bavaria.)

**Saxifraga kestoniensis.** (*G. C.* 1911, xlix. 74, 107.) *H.* Supposed to be a hybrid derived from *S. Burseriana*. (*G. Reuthe*.)

\***Saxifraga laevis.** (*G. C.* 1911, xlix. 343.) *H.* Habit spreading like that of *S. aizoides*. Leaves narrowly elliptic-ovate, in loose rosettes. Stems about 2 in. high, tinged with crimson on the lower part, bearing 4-6 rather small rich yellow flowers. Caucasus. (Kew.)

\***Saxifraga lingulata** var. **australis.** (*K. B.* 1911, 130, f. 2.) *H.* Very variable in the shape and size of the leaves which are sometimes long, broadly linear or linear-spathulate, and sometimes short and broadly spatulate, like those of the variety *lanceolata*, but broader. = *S. australis*, *Moric.* Italy and Sicily. (Miss Willmott.)

\***Saxifraga pungens** (*G. C.* 1911, xlix. 343.) *H.* A garden hybrid between *S. Rocheliana* and *S. juniperifolia*. (F. Sundermann, Lindau, Bavaria.)

\***Saxifraga Sundermannii.** (*G. C.* 1911, xlix. 228, f. 101.) *H.* A garden hybrid between *S. Burseriana* and *S. marginata*, with a closer resemblance to the former, while *S. Obristii*, of the same parentage, is more nearly allied to the latter. (F. Sundermann, Lindau, Bavaria.)

**Sedum allantoides.** (*M. G. Z.* 1911, 76, f. 14.) Crassulaceae. *G.* A bushy plant 8-12 in. high, becoming woody, with hoary branches, leaves and inflorescence. Leaves cylindric or almost clubshaped, curved, ¾-1½ in. long, ¼-½ in. thick, rounded at the apex. Flowers small, greenish-white or somewhat reddish, in a much branched panicle. Mexico. (Darmstadt B. G.)

\***Sedum pilosum.** (*G. C.* 1911, xlix. 347, f. 160.) *H.* Leaves thick, succulent, in rosettes nearly 1 in. across, several of which are formed by one plant. Stems about 3 in. high, rather densely covered with finely pubescent leaves. Flowers pink, in much branched corymbs 2 in. across. Caucasus. (*Regel & Kesselring*, St. Petersburg.) [*Syn. S. Regelii*, *Hort.*, not of Kuntze.]

\***Senecio Heritieri.** (*G. C.* 1911, 1. 333, f. 142.) Compositae. *G.* Rarely more than 1 ft. high, with a straight

stem terminated by a rather large solitary flower-head. Leaves 5- or 7-lobed, white - tomentose beneath. Ray-florets rather narrow, widely separated at the tips. A re-introduction. Under the name of *Cineraria lanata* it was figured in *B. M. t.* 53 (1788). (For the plant generally grown as *S. Heritieri* the name *S. hortensis* is proposed. This is believed to be a hybrid between *S. Heritieri* and *S. populifolius*.) Teneriffe. (Sutton & Sons.)

**Senecio Prainianus.** (*G. C.* 1911, 1. 82.) *G.* A new species resembling *S. Petasitis* in habit. Shrub about 3 ft. high, with ornamental foliage. Leaves rather fleshy, suborbicular, 5-7 in. broad, palmately lobed, cordate at the base, roughish above, pubescent on the prominent nerves beneath; petioles above 4 in. long. Inflorescence a drooping much branched elegant panicle. Flower-heads at first yellow, fading to brown; florets all tubular. Mexico. (La Mortola, Ventimiglia, Italy.)

**\*Senecio saxifragoides.** (*B. M. t.* 8394.) *H.* or *H. H.* A perennial herb with a stout rootstock and a densely woolly crown. Leaves radical, petioled, broadly oblong - elliptic or nearly orbicular, 3-5 in. long,  $1\frac{3}{4}$ -4 in. broad, hoary-woolly beneath. Scapes up to 1 ft. high, branched. Flower-heads numerous, yellow,  $1\frac{1}{2}$  in. across, corymbosely arranged. New Zealand. (Kew.)

**Sobralia Malmquistiana.** (*Orchis*, 1911, 59, ff. 10-16.) Orchidaceae. *S.* Similar to *S. macrantha* in habit, but its leaves are broader and thicker. Flowers pale rose, with an orange-yellow blotch on the lip. Sepals oblong, nearly 4 in. long. Petals obliquely elliptic, about as long as the sepals. Lip broadly obovate,  $3\frac{1}{2}$  in. long, undulate-crisped on the margin. Probably Colombia. (Herrenhausen Berggarten.)

**\*Solandra Hartwegii.** (*G. C.* 1911, xlix. 383, f. 173; *K. B.* 1911, 345.) Solanaceae. *G.* A new species which has been confused with *S. grandiflora*. A shrub, with lustrous green smooth leaves similar in shape to those of *S. grandiflora*, but usually more acuminate. Flowers fragrant. Corolla funnel-shaped, fleshy, lasting 2 days, at first rich yellow, finally changing to orange, 6-8 in. across the mouth; tube greenish, 5 in. long. Mexico. (Glasnevin B. G.)

**Sophrocattleya Wellesleyae.** (*G. C.* 1911, xlix. 107; *O. R.* 1911, 152.)

Orchidaceae. *G.* A garden hybrid between *Cattleya labiata* and *Sophronitis grandiflora*. (*R. G. Thwaites*; *J. Cypher & Sons*.)

**Sorbus plantierensis.** (*Späth Cat.* 1911-12, n. 148, 127.) Rosaceae. *H.* Apparently a hybrid between *S. Aria* and *S. americana*. (Simon-Louis frères, Plantières, Metz.)

**\*Stapelia similis.** (*K. B.* 1911, 358.) Asclepiadaceae. *S.* Stems erect, 3-6 in. long, 4-6 angled, somewhat toothed on the angles. Flowers 3-6, arising at the base of the stems. Corolla rotate,  $\frac{3}{4}$  in. across, dark purple; lobes ovate, acute. Little Namaqualand. (Kew.)

**Statice Pseudo-armeria mauritanica.** (*Jard.* 1911, 383.) Plumbaginaceae. *H.* Leaves spreading, forming a rosette. Stems numerous, straight, each bearing a large head of rose-coloured flowers. (Vilmorin-Andrieux & Co, Paris.)

**Symbegonia fulvo-villosa.** (*B. M. t.* 8409.) Begoniaceae. *S.* An erect herb, 5-8 in. high. Leaves lanceolate-oblong, very unequal at the base,  $2\frac{1}{2}$ - $2\frac{3}{4}$  in. long,  $1\frac{1}{4}$  in. broad, deeply double-serrate. Flowers 1-sexual, shortly pedicelled, the male with 2 free ovate segments and 12-20 stamens, and the female with the segments united in a pale yellow campanulate tube, 5 serrulate spreading lobes, and an inferior 3-winged ovary. New Guinea. (Glasnevin B. G.)

**Symphoricarpos sinensis.** (*Pl. Wils.* 117.) Caprifoliaceae. *H.* An erect quite glabrous shrub 3-6 ft. high. Leaves oval or rhombic-ovate,  $\frac{3}{4}$ -1 in. long,  $\frac{1}{2}$ - $\frac{3}{4}$  in. broad, quite entire. Flowers sessile, solitary in the axils of short subulate bracts, forming 6-12-flowered terminal spikes. Corolla white,  $3\frac{1}{2}$  lin. long. Fruit ovoid,  $3\frac{1}{2}$  lin. long, dark blue. Central China. (Arnold Arboretum, Boston, U.S.A.)

**Tilia grandifolia lutescens.** (*M. D. G.* 1911, 424.) Tiliaceae. *H.* Leaves at first pale golden-yellow, afterwards light yellow-green. (E. Gröne-Braukmann, Scheda, Wickede, Germany.)

**\*Torenia atropurpurea.** (*B. M. t.* 8388; *G. C.* 1911, 1. 334.) Scrophulariaceae. *S.* A very distinct species. Leaves ovate or deltoid-ovate,  $\frac{3}{4}$ - $1\frac{1}{2}$  in. long,  $\frac{1}{4}$ - $\frac{3}{4}$  in. broad, shortly stalked, serrate. Flowers usually solitary on peduncles at the ends of the branches. Calyx narrow, wingless. Corolla dark purple,  $1\frac{1}{2}$  in. long; tube narrow at the base, much exerted, enlarged and curved above; limb about 1 in. across,



with 4 rounded lobes. Malay Peninsula. (Kew.)

**Trichopilia Gouldii.** (*G. C.* 1911, 1. 422; *G. M.* 1911, 937.) Orchidaceae. G. A garden hybrid between *T. saurvis* and *T. fragrans*. (Charlesworth & Co.)

**Ulmus effusa rubescens.** (*M. D. G.* 1911, 423.) Urticaceae. H. This form has its leaves coloured a beautiful blood-red in the autumn, while in the form *typica* they are yellowish. (F. Graf von Schwerin, Wendisch-Wilmersdorf, Germany.)

**Ulmus Plotii.** (*G. C.* 1911, 1. 408, ff. 165-166.) H. A new name applied to a species which was growing in a park at Hanwell in Oxfordshire in 1667 and is now found wild in several counties in England. It is a tall very graceful tree, sometimes over 80 ft. high, with small narrow acuminate glabrous leaves, usually about 2 in. long and 1 in. broad. It has been recorded as Lock's Elm (*U. sativa* var. *Lockii*, Druce.) [In *G. C.* 1912, li. 199, 216, *U. Plotii* is referred to *U. sativa*, Mill.]

**Urbinia Purpusi.** (*M. G. Z.* 1911, 76, ff. 12-13.) Crassulaceae. G. Resembles a species of *Haworthia* in its leaves which are almost flat above, more or less keeled beneath, ending in a fine point, and arranged in small dense rosettes. Inflorescence rather long. Flowers few, campanulate, yellow-red, yellow at the tips. Mexico. (Darmstadt B. G.)

**Vanda Amesiana albens.** (*G. C.* 1911, 1. 462.) Orchidaceae. S. Flowers almost entirely white. (Stuart Low & Co.)

**Vanda coerulea** var. **Wrigleyi.** (*O. R.* 1911, 62.) S. Flowers rather smaller than in the type. Sepals and petals somewhat narrower, pure white. Lip rose-pink. Spur rather long and slender. Possibly a natural hybrid. (O. O. Wrigley.)

**Vanda Kimballiana alba.** (*G. C.* 1911, 1. 312; *G. M.* 1911, 819.) G. Flowers white, with a yellow base to the lip. (Mansell & Hatcher.)

\***Veronica filifolia.** (*G. C.* 1911, xlix. 250.) Scrophulariaceae. H. A graceful little plant with narrow leaves and small china-blue flowers. Russia. (S. Arnott.)

**Veronica Veitchii.** (*G. C.* 1911, 1. 391; *G. M.* 1911, 801, f.) H. H. A garden hybrid of which the parentage

is not recorded. It is a shrubby plant with large shining green leaves and spikes of rich blue flowers. (R. Veitch & Son.)

**Viburnum betulifolium.** (*Sargent, T. & S.* ii. 99, t. 147; *M. D. G.* 1911, 245.) Caprifoliaceae. H. Leaves deciduous, ovate to rhombic-ovate, 1½-2½ in. long, ¾-1½ in. broad, coarsely toothed, nearly glabrous, petiole 5-7½ lin. long, with 2 small stipules near the base. Corymbs terminal, umbel-like, 2½-4 in. across. Flowers less than ¼ in. across. Fruits red. Central and Western China. (Arnold Arboretum, Boston, U.S.A.; H. A. Hesse, Weener, Hanover.)

**Viburnum brevipes.** (*Pl. Wils.* 113.) H. Nearest allied to *V. dilatatum* from which it is distinguished by its shorter petioles and narrower leaves, the underside of which are fasciculate-pilose chiefly on the veins, not clothed with usually forked hairs. Central China. (Arnold Arboretum, Boston, U.S.A.)

**Viburnum foetidum** var. **rectangulum.** (*M. D. G.* 1911, 245; *Sargent, T. & S.* ii. 114.) H. Shrub. 5-13 ft. high, with long pendulous branches. Leaves elliptic to oblong, 1½-2½ in. long, almost glabrous, entire or with a few coarse teeth near the apex. Corymbs nearly sessile. Fruits red. Central China. (Arnold Arboretum; H. A. Hesse.)

\***Viburnum Davidii.** (*G. C.* 1911, xlix. 317; *Gard.* 1911, 204.) H. An evergreen species. Leaves ovate, 4-6 in. long, 1½-2½ in. broad, toothed, glossy, strongly 3-nerved. Flowers small, white, in corymbs. Fruits small, oval, blue. Western and Central China. (J. Veitch & Sons.)

**Viburnum hupehense.** (*Sargent, T. & S.* ii. 116; *Späth Cat.* 1911-12, n. 148, 137.) H. Nearly related to *V. dilatatum* but is distinguished by its orbicular-ovate stipulate leaves. It differs from *V. betulifolium* by having its leaves pubescent on both sides. Central China. (L. Späth, Berlin.)

**Viburnum Wilsonii.** (*Sargent, T. & S.* ii. 115; *M. D. G.* 1911, 245.) H. Leaves membranous, ovate, long-acuminate, 1½-3½ in. long, 1-1½ in. broad, toothed, more or less hairy; petiole 5-7½ lin. long, hairy. Corymbs terminal, about 2 in. across, covered with a yellowish velvety pubescence. Flowers less than ¼ in. across. Central

China. (Arnold Arboretum; H. A. Hesse.)

**Viola Munbyana alba.** (*R. H.* 1911, 285.) *Violaceae*. H. A variety with very erect stems and white flowers. (Cayeux & Le Clerc, Paris.)

**Wistaria chinensis** vars. (*M. D. G.* 1911, 239-240.) *Leguminosae*. H. In addition to those of the two varieties specified below, descriptions are given of several varieties or forms of *W. chinensis*, some of which are already well-known in gardens as distinct species or as varieties with other names. The variety *albiflora* appears

to be the same as the variety *alba*, and *monstrosa* the same as *flore pleno*.

**Wistaria chinensis aucubaefolia.** (*M. D. G.* 1911, 239.) H. Leaves rather narrow, unequally blotched with a beautiful pale yellow. Flowers blue. Central China. (C. Sprenger, Naples.)

**Wistaria chinensis Demckerii.** (*M. D. G.* 1911, 239.) H. A very free-flowering variety, with pale bronze-coloured young leaves and blue flowers. Central China. (C. Sprenger, Naples.)